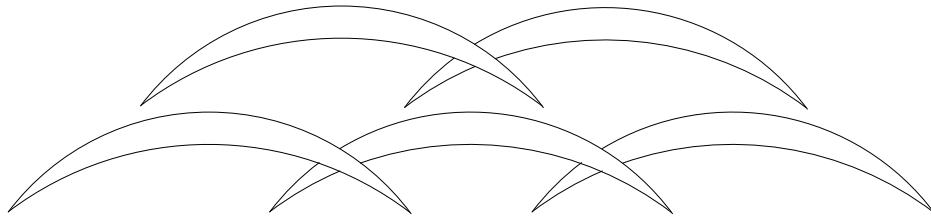


CITY OF COPPERAS COVE

DEPARTMENT OF PUBLIC WORKS
AND ENGINEERING DIVISION

STANDARD DETAILS



PUBLIC WORKS DEPARTMENT

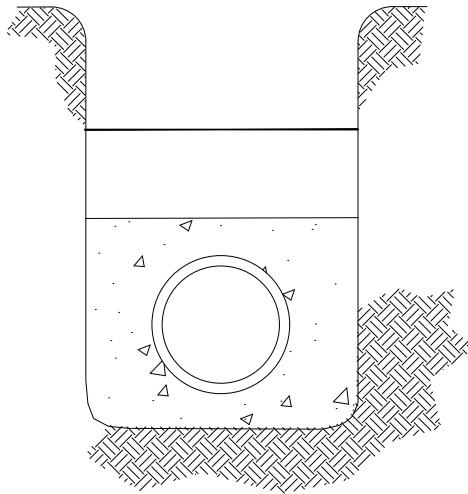
1601 N. FIRST ST.
COPPERAS COVE, TX 76522
(254) 547-0751
(254) 547-0823

ENGINEERING DEPARTMENT

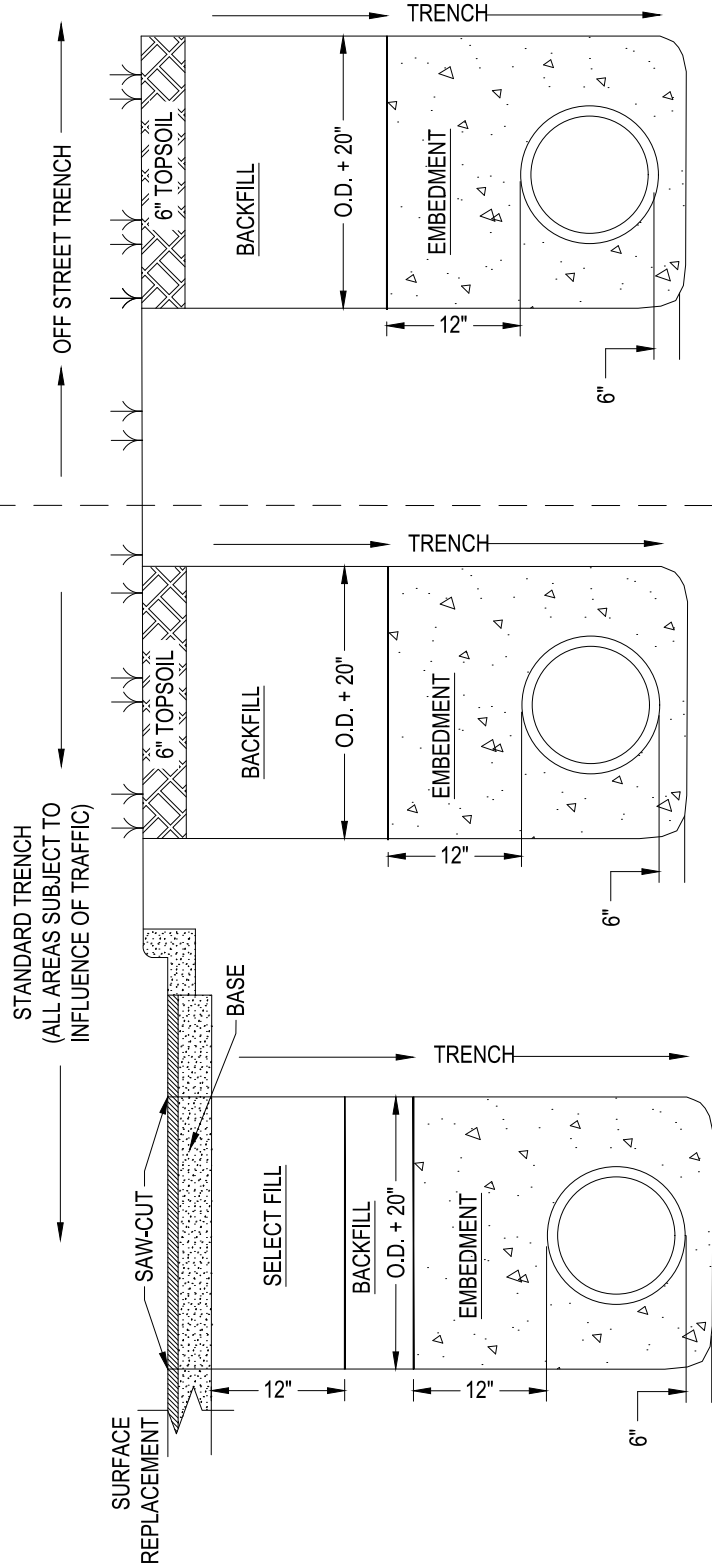
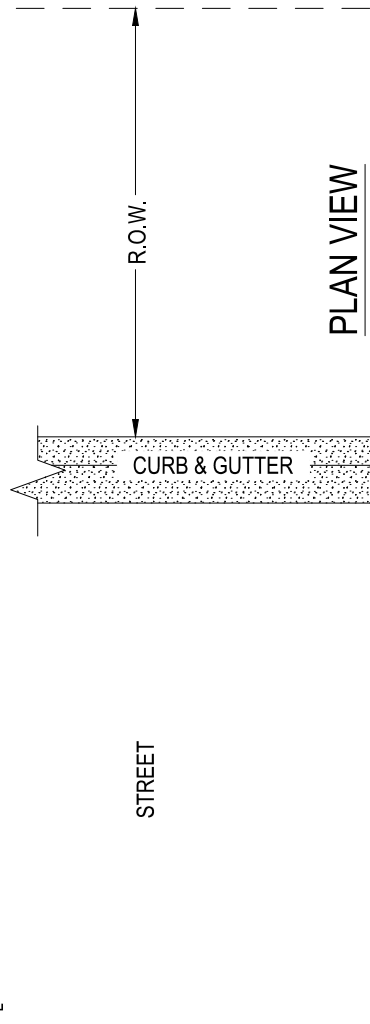
914 S. MAIN ST.
SUITE G
COPPERAS COVE, TX 76522
(254) 547-4221

CITY OF COPPERAS COVE

GENERAL DETAILS



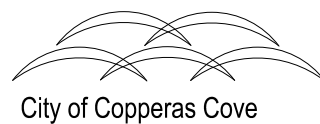
- NOTE:
1. TRAFFIC AREAS SHALL INCLUDE ALL AREAS UNDER THE INFLUENCE OF TRAFFIC, INCLUDING ALL TRENCHES IN THE RIGHT OF WAY OR BACK OF CURB, ALL ALLEY WAYS, AND PARKING LOTS.
 2. PLEASE REFER TO SPECIFICATIONS FOR EMBEDMENT INFORMATION AND SURFACE REPLACEMENT INFORMATION.



TRENCH EMBEDMENT GUIDELINES

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

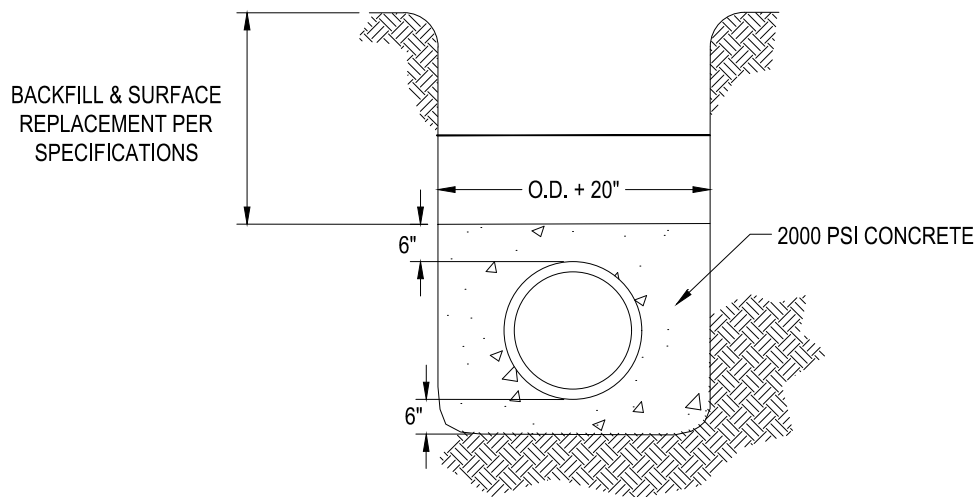
CONSTRUCTION STANDARD DETAILS



SCALE : N.T.S.

DATE : APRIL 2018

PAGE NO. : 1

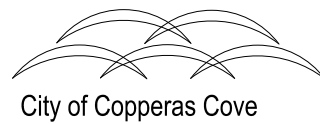


CONCRETE ENCASEMENT

CONCRETE ENCASEMENT

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

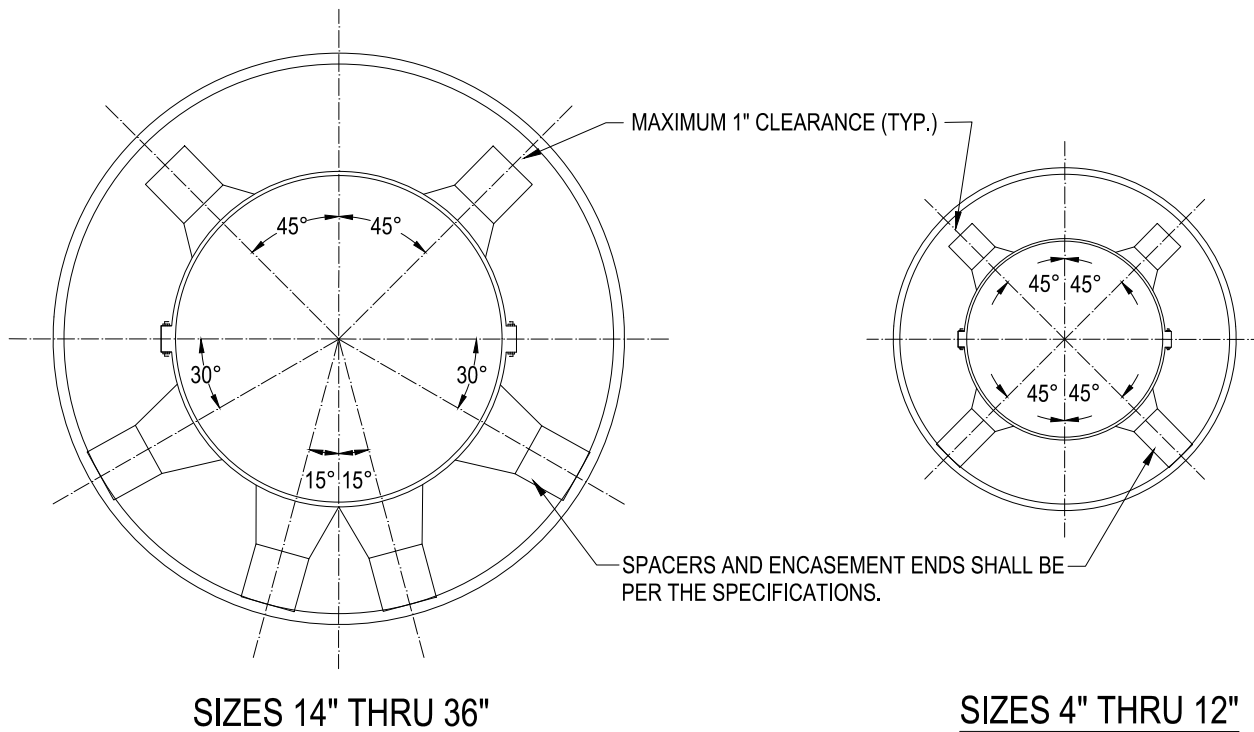
CONSTRUCTION STANDARD DETAILS



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DATE : APRIL 2018

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REQUIRED INSTALLATION PRACTICES FOR PIPE IN CASINGS ARE:

1. BELL MUST MAINTAIN A MINIMUM OF 1" CLEARANCE FROM CASING WALL.
2. THE PIPE MUST BE BRACED AND ANCHORED IN A MANNER THAT PREVENTS MOVEMENT IN ANY DIRECTION.
3. THE PIPE MUST BE INSTALLED IN A MANNER THAT WILL PERMIT ITS REMOVAL WITH REASONABLE EASE, SHOULD THIS BE NECESSARY AT A LATER DATE.
4. PLACE SPACERS AT NO MORE THAN 2' FROM EACH JOINT AND A MAXIMUM SPACING AS PER MANUFACTURER'S RECOMMENDATION.
5. SPACERS MUST BE A MAXIMUM OF 1" FROM CASING WALL.
6. ALL CASINGS EXPOSED TO THE ATMOSPHERE MUST BE PAINTED PER STANDARD SPECIFICATIONS.
7. FOR RAILROAD CROSSING, COORDINATE WITH TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) RAIL DIVISION FOR REQUIRED THICKNESS OF CASING PIPE.

PIPE THROUGH CASING

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS

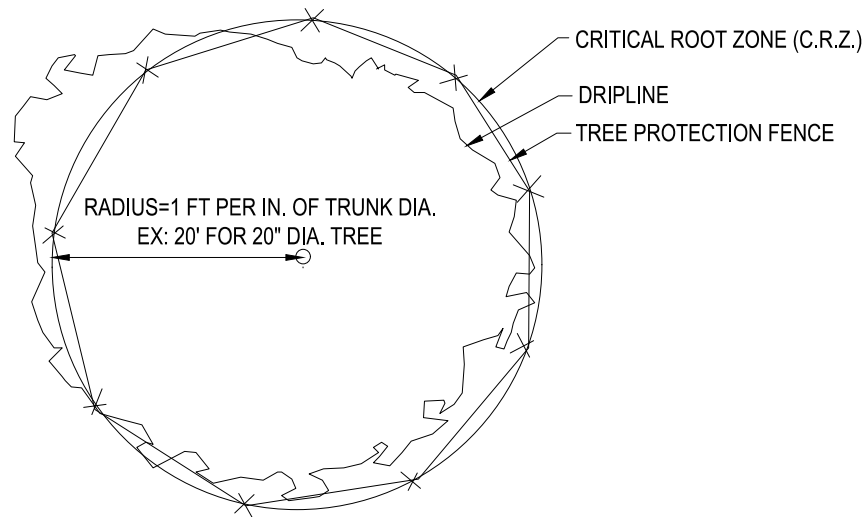
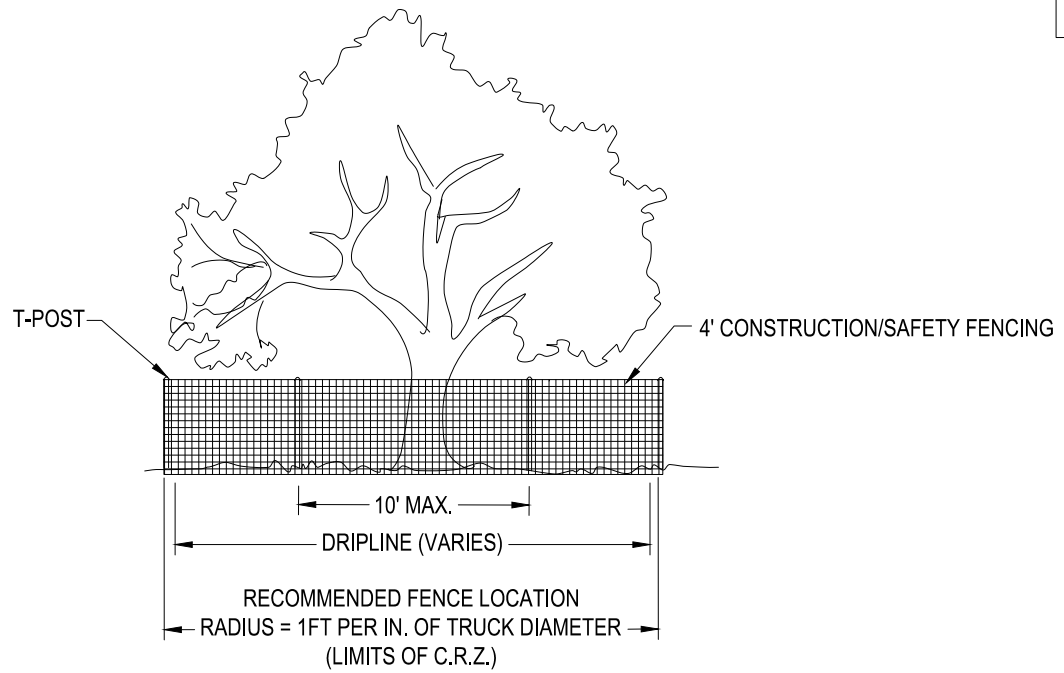


City of Copperas Cove

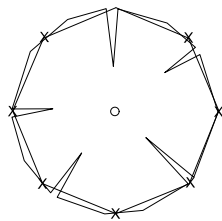
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DATE : APRIL 2018

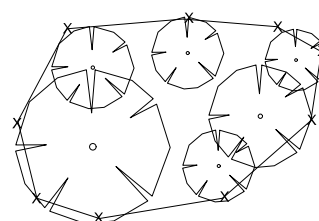
PAGE NO. : 3



INDIVIDUAL TREE



GROUP OF TREES



FENCE LOCATION FOR INDIVIDUAL TREE AND GROUP OF TREES

TREE PROTECTION FENCING

CITY OF COPPERAS COVE

DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS

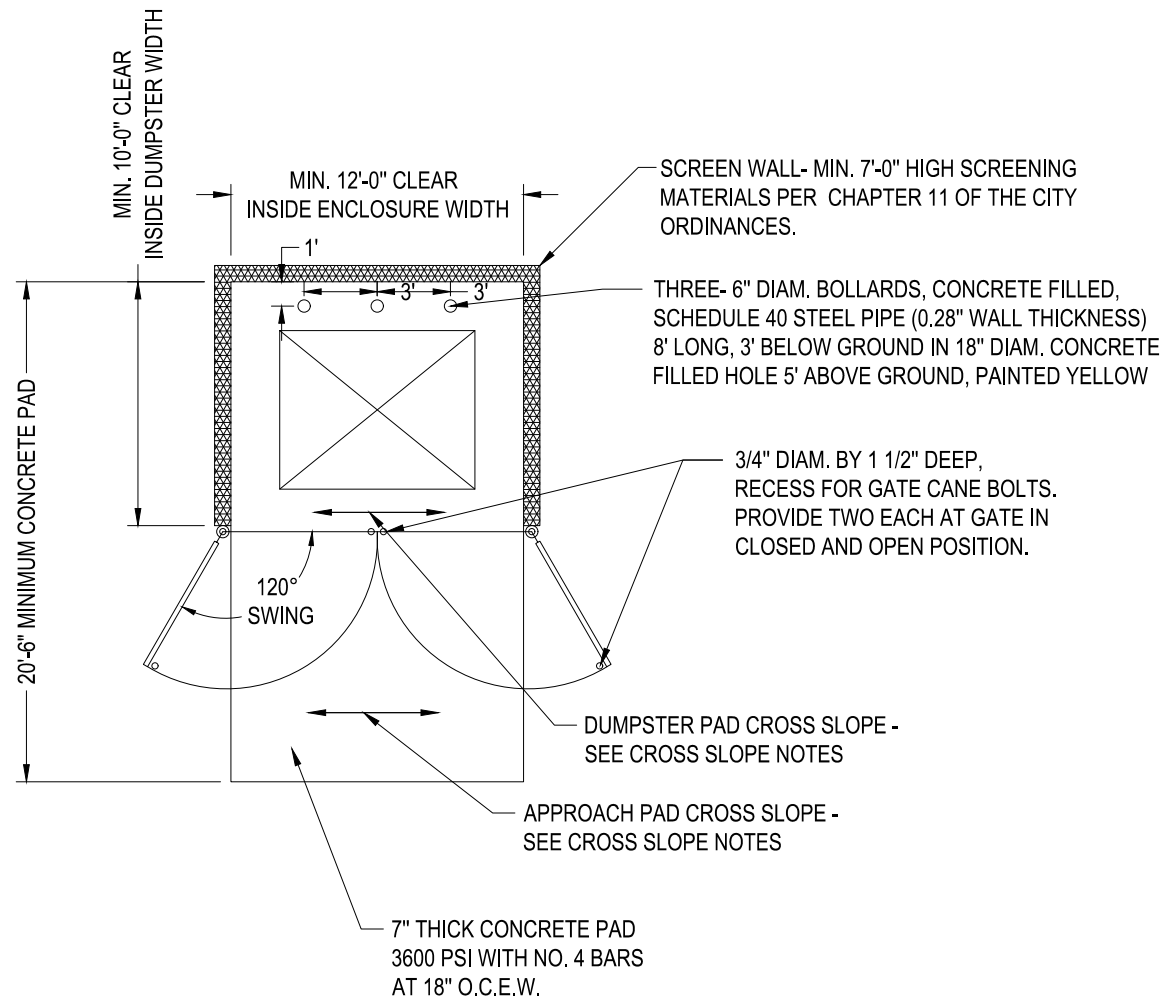


City of Copperas Cove

SCALE : N.T.S.

DATE : APRIL 2018

PAGE NO. : 4



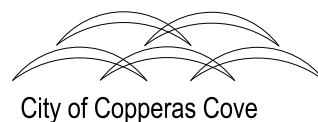
CROSS SLOPE NOTES:

1. THE MAXIMUM CROSS SLOPE FOR THE CONCRETE APPROACH AND DUMPSTER PAD SHALL BE 2%, UNLESS SITE AND TOPOGRAPHY LIMITATIONS NECESSITATE THE USE OF A STEEPER SLOPE. A STEEPER SLOPE WILL REQUIRE THE APPROVAL OF THE PUBLIC WORKS DIRECTOR. IN NO CASE SHALL THE CROSS SLOPE EXCEED 5%.
2. IF THE CROSS SLOPES OF THE DUMPSTER PAD AND APPROACH PAD ARE DIFFERENT, THE DIFFERENCE BETWEEN THE TWO SLOPES SHALL BE A MAXIMUM OF 2%.

SOLID WASTE CONTAINER PAD DETAIL

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

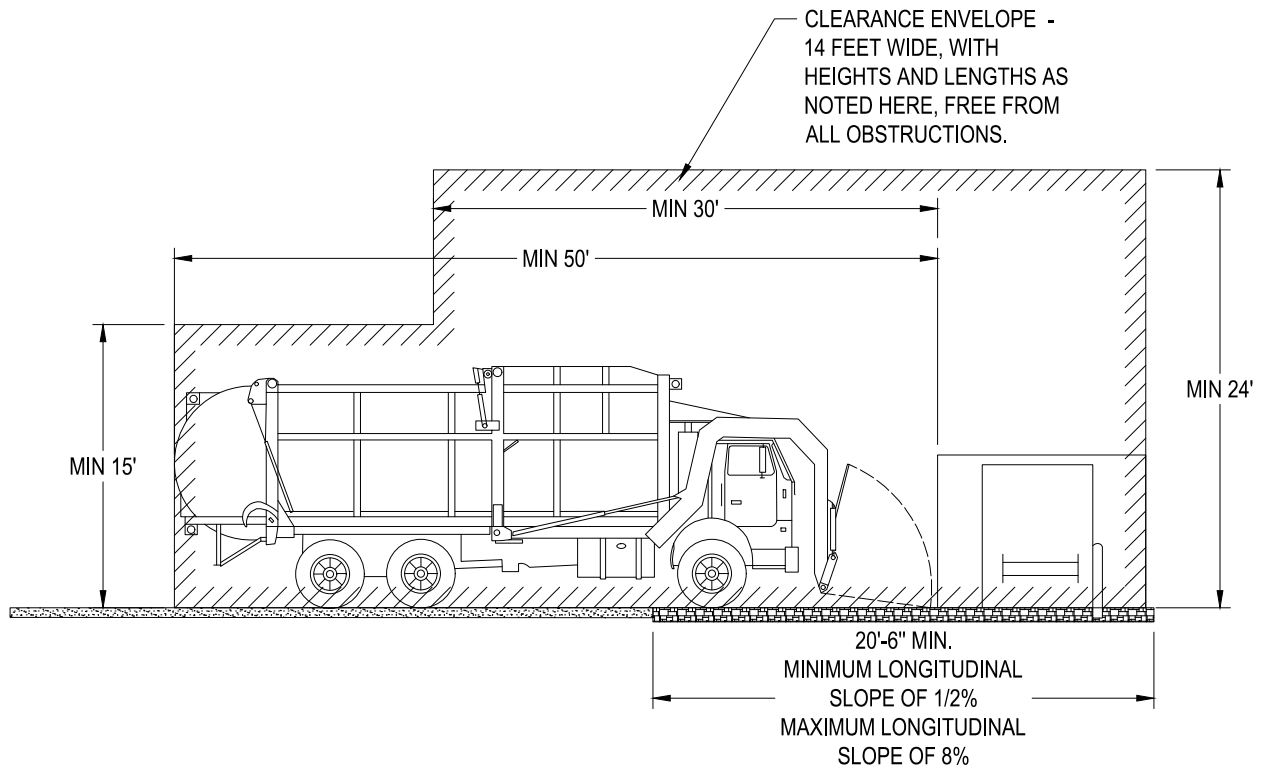
CONSTRUCTION STANDARD DETAILS



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SOLID WASTE CONTAINER FRONT-LOADER VEHICLE ACCESS

CITY OF COPPERAS COVE

DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS

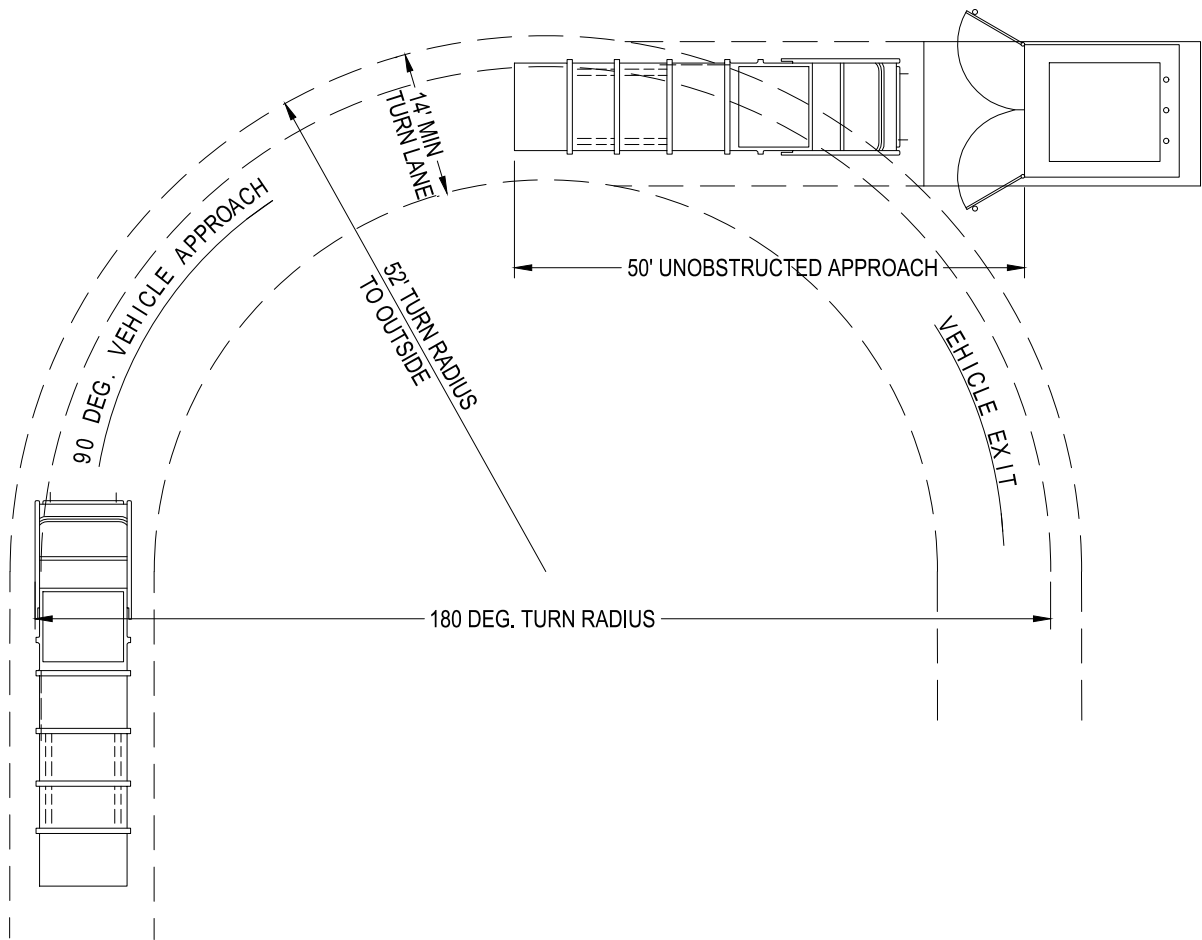


City of Copperas Cove

SCALE : N.T.S.

DATE : APRIL 2018

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**NOTE:**

ALTERNATE DESIGN ALLOWED ONLY WHEN PROVEN THROUGH ACCEPTED ENGINEERING ANALYSIS (I.E. AUTOTURN DATA OR SIMILAR ENGINEERING ANALYSIS SOFTWARE)

SOLID WASTE CONTAINER VEHICLE ACCESS DETAIL

CITY OF COPPERAS COVE

DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



City of Copperas Cove

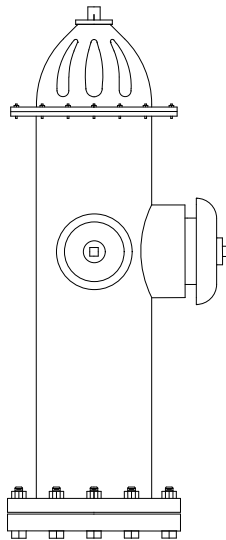
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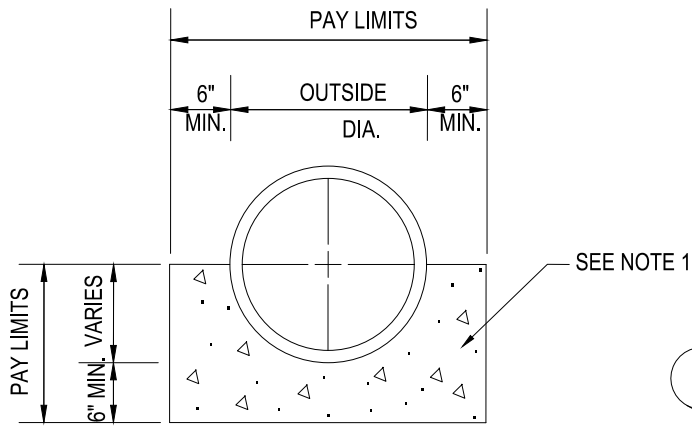
DATE : APRIL 2018

PAGE NO. : 7

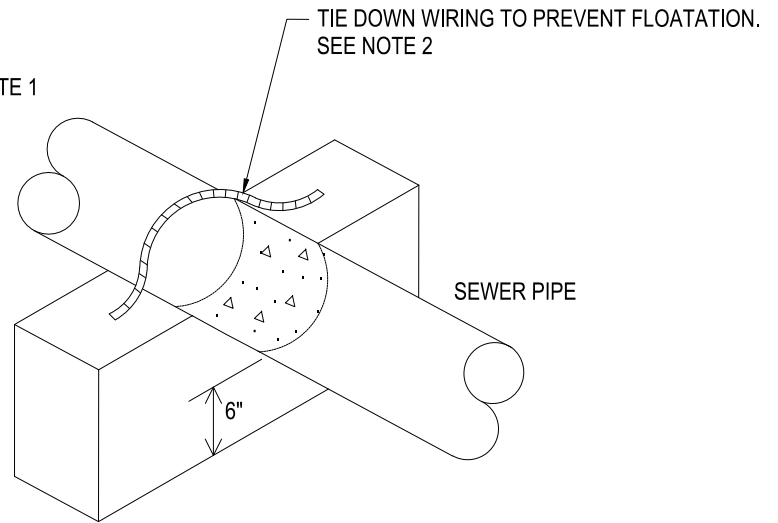
CITY OF COPPERAS COVE

WATER DETAILS

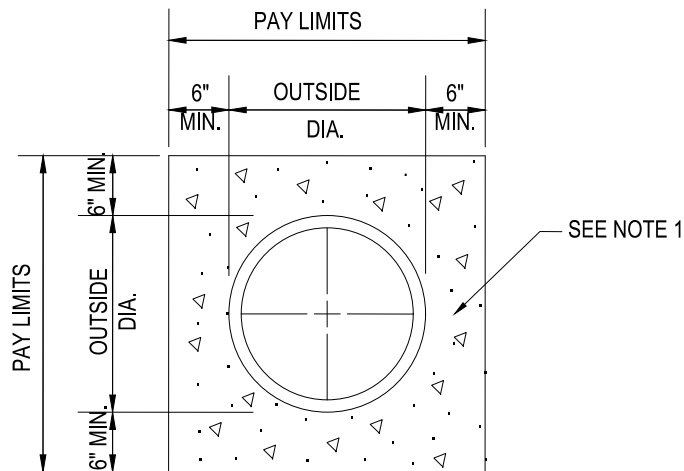




TYPICAL CONCRETE CRADLE



TYPICAL SUPPORT FOR CRADLE



TYPICAL CONCRETE ENCASEMENT

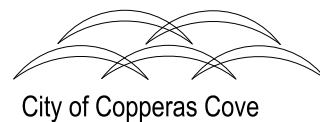
NOTE:

1. ALL CONCRETE ENCASEMENT SHALL BE POURED AT A PLANE 6" ABOVE THE PIPE BETWEEN EXCAVATED TRENCH WALLS.
2. FOR PRECAST CRADLE, TIE DOWN WIRE SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDED PRACTICE. FOR CAST IN PLACE CRADLE, USE J-HOOK OR OTHER APPROVED METHOD TO ATTACH TIE DOWN WIRE.
3. METAL FORM TIES SHALL BE PER SPECIFICATION 200.
4. CONCRETE FOR CRADLE SUPPORT SHALL BE PER SPECIFICATION 210.

TYPICAL CONCRETE ENCASEMENT AND CRADLE

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS

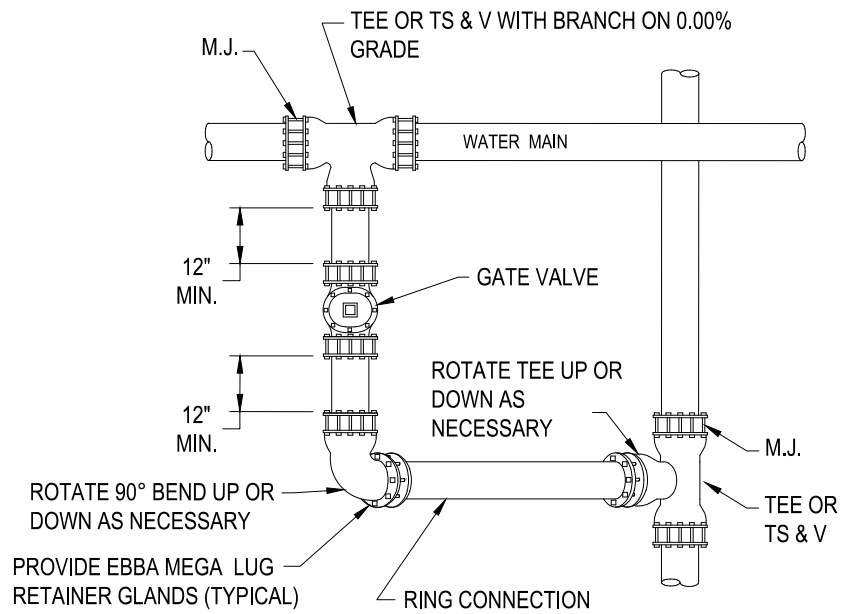


City of Copperas Cove

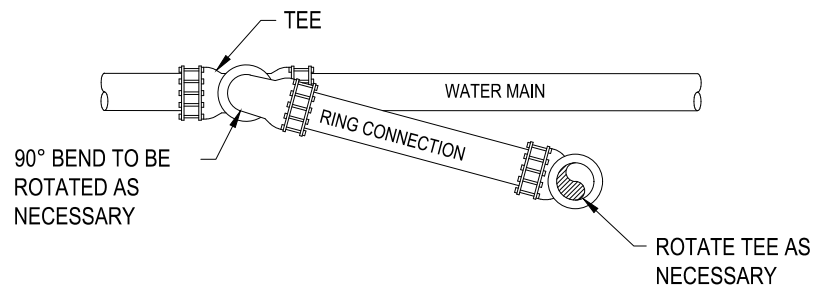
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PLAN



SECTION

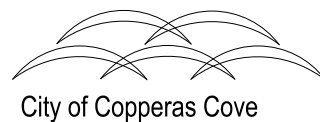
NOTES:

1. MINIMUM DIAMETER OF RING CONNECTION SHALL BE DIAMETER OF AS SMALLER MAIN.
2. IF TAPPING SLEEVE & VALVE IS USED, GATE VALVE IS NOT NECESSARY.
3. WATER MAIN MAY GO OVER OR UNDER AS NECESSARY.

RING CONNECTION

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

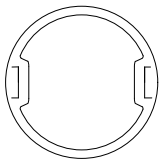
CONSTRUCTION STANDARD DETAILS



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DATE : APRIL 2018

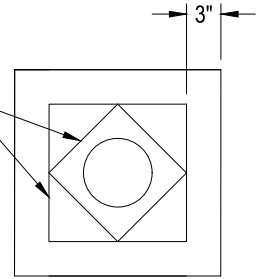
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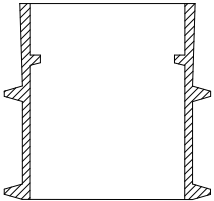
SEE CITY OF COPPERAS COVE SPECIFICATIONS, 311.B.A FOR APPROVED MANUFACTURERS FOR VALVE BOX AND COVER .



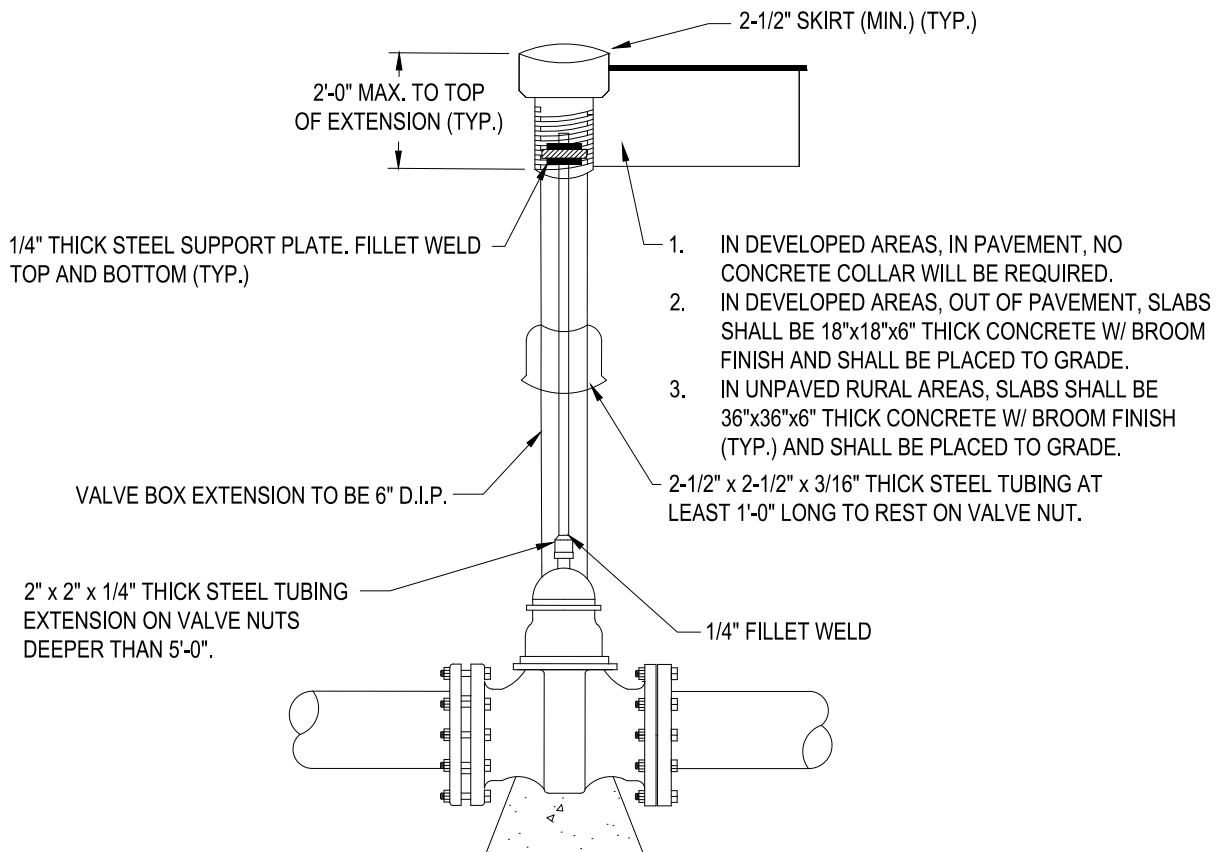
IN PAVEMENT: #4 REBAR
OUTSIDE PAVEMENT:
#3 REBAR



VALVE BOX PLAN VIEW
NOTE: CIRCULAR FORMS
WILL ALSO BE ALLOWED



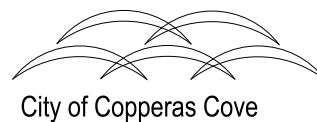
VALVE BOX AND COVER



VALVE BOX & EXTENSION

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

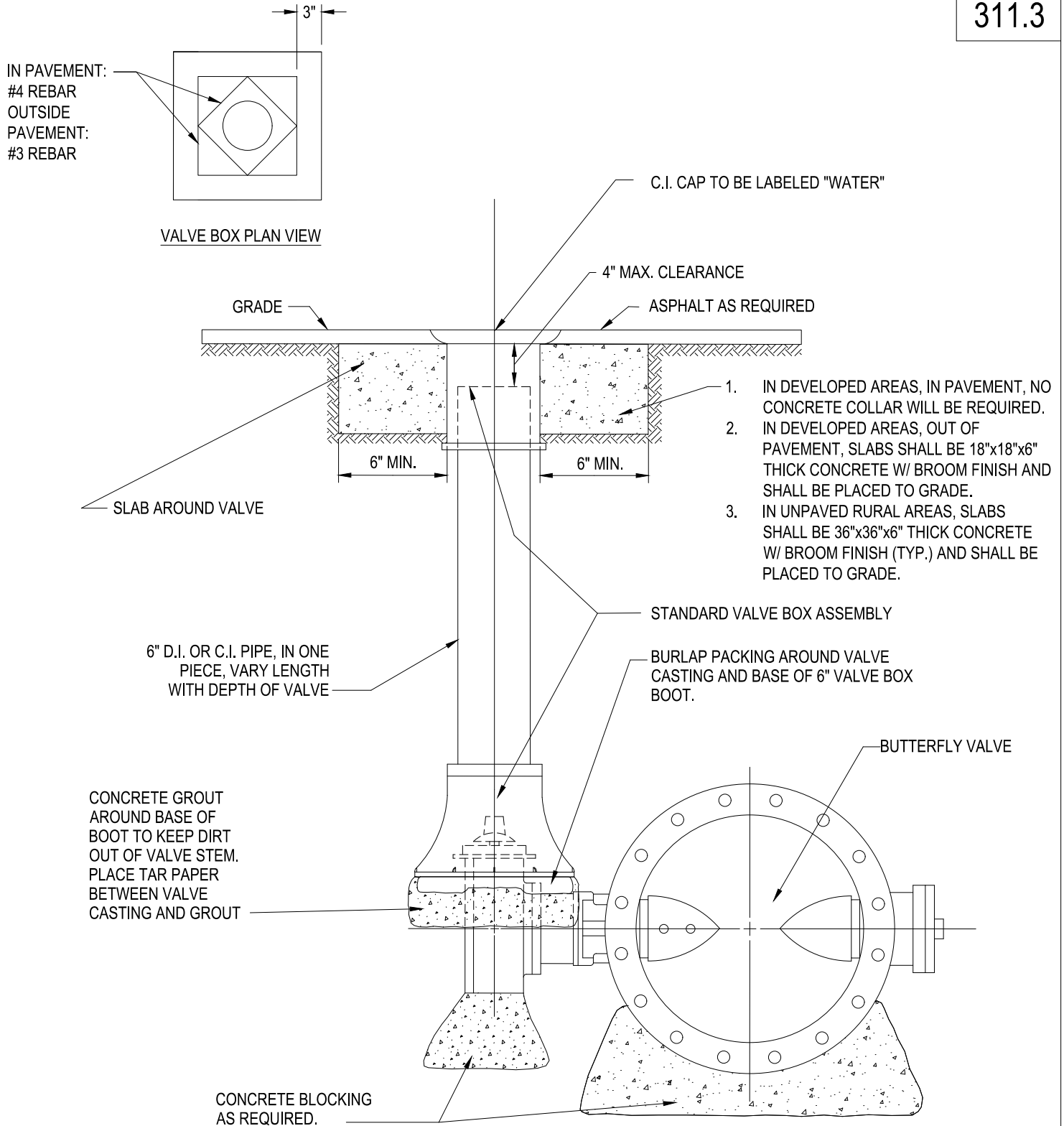
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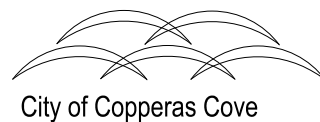
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BUTTERFLY VALVE AND VALVE BOX - FOR HORIZONTAL GEARBOX

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

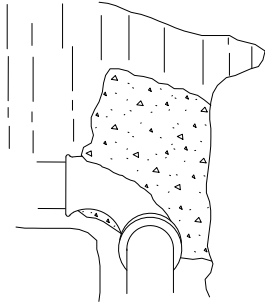
CONSTRUCTION STANDARD DETAILS



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DATE : APRIL 2018

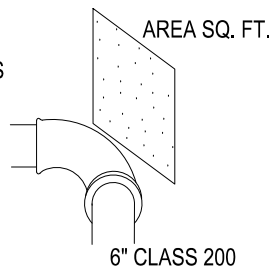
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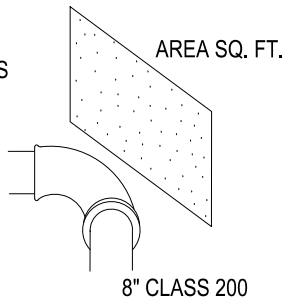
TYPICAL BLOCKING FOR 90° BENDS:

AREA IN SQ. FT. FOR EACH OF THE FOLLOWING PIPE SIZES:

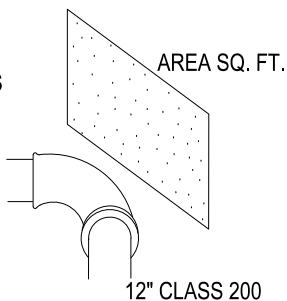
2 SQ. FT IN ROCK &
4 SQ. FT IN OTHER SOILS



4 SQ. FT IN ROCK &
6 SQ. FT IN OTHER SOILS



9 SQ. FT IN ROCK &
14 SQ. FT IN OTHER SOILS



THRUST BLOCKING DESIGN

ON BASIS OF 200 P.S.I. WATER PRESSURE USED FOR TESTS, THE BLOCKING REQUIRED FOR TWO TYPES OF SOILS IS NOTED BELOW. IN ONE CASE, A SOIL PRESSURE OF 5000 P.S.F. IS USED FOR ROCK EXCAVATION AND FOR SOILS OTHER THAN ROCK A 3000 P.S.F. BEARING SOIL PRESSURE IS USED. THE SURFACE AREAS BELOW ARE FOR UNDISTURBED SOIL OR ROCK.

THE DISTRIBUTION ON SYSTEM IS DESIGNED TO OPERATE WITH A MAXIMUM WATER PRESSURE OF 175 P.S.I. ALL CALCULATIONS APPLY TO DUCTILE IRON PIPE AND P.V.C. PIPE CLASS 200 (SDR 13.5).

SQUARE FEET OF BLOCKING REQUIRED FOR ROCK EXCAVATION

SIZE PIPE	TEES & DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS
6"	2	2	1	1
8"	3	4	2	1
12"	6	9	5	2
16"	11	15	8	4

SQUARE FEET OF BLOCKING REQUIRED FOR OTHER THAN ROCK EXCAVATION

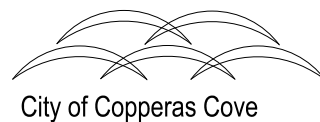
SIZE PIPE	TEES & DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS
6"	3	4	2	1
8"	4	6	4	2
12"	10	14	8	4
16"	18	25	14	7

1. TRANSIT 2000 P.S.I. CONCRETE MIX SHALL BE USED; HOWEVER FOR SMALL VOLUME REQUIREMENTS CON-CRETE MIXED AT JOB SITE WILL BE ACCEPTABLE.
2. ONLY IF A CONCRETE MIXER IS USED, ALL AGGREGATE SHALL BE CLEAN AND THE FIELD MIX SHALL BE IN THE RATIO OF 1:3:4 AND CONTAIN NOT LESS THAN 4 SACKS OF CEMENT PER CU. YD.

THRUST BLOCKING

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

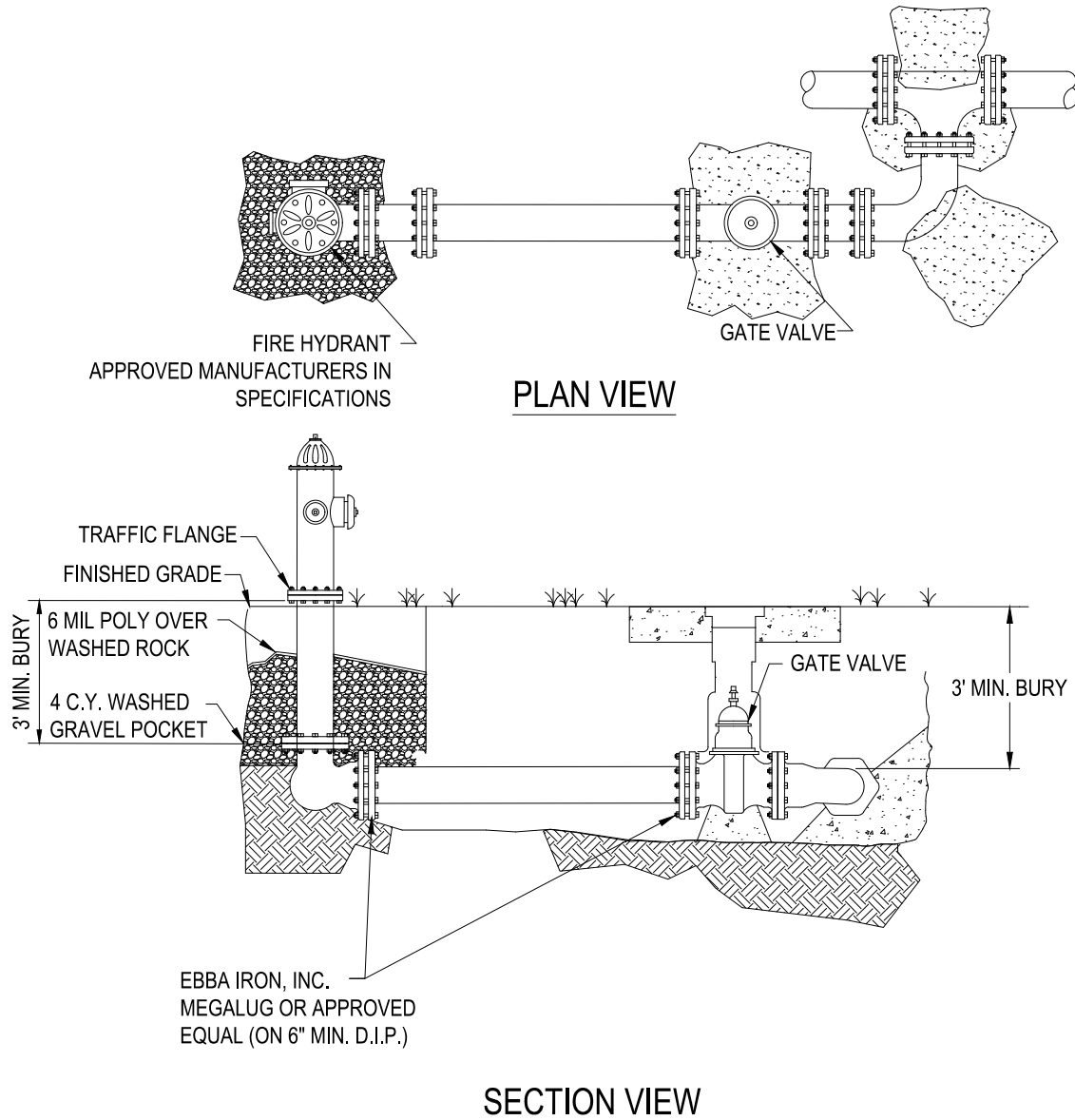
CONSTRUCTION STANDARD DETAILS



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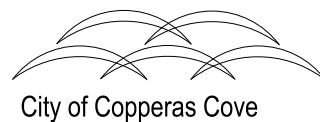
NOTES:

1. FIRE HYDRANT TO BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. CONTRACTOR TO REMOVE CHAINS FROM F.H. CAPS.
2. VALVE IS REQUIRED TO BE POSITIONED AS CLOSE TO TEE AS POSSIBLE.
3. ON OPEN DITCH STREET, FIRE HYDRANT SHALL BE PLACED ON THE TOP BANK OPPOSITE OF THE DITCH FROM THE STREET.
4. ALL FITTINGS ON FIRE HYDRANT LEAD NEED TO BE EBBA IRON, INC. MEGALUG RETAINER GLANDS OR APPROVED EQUAL.
5. LEAD SHALL BE D.I.P. IN ALL CASES, SHALL BE 6" MIN. AND SHALL BE POLY WRAPPED.

FIRE HYDRANT SETTING - PARALLEL TO MAIN

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

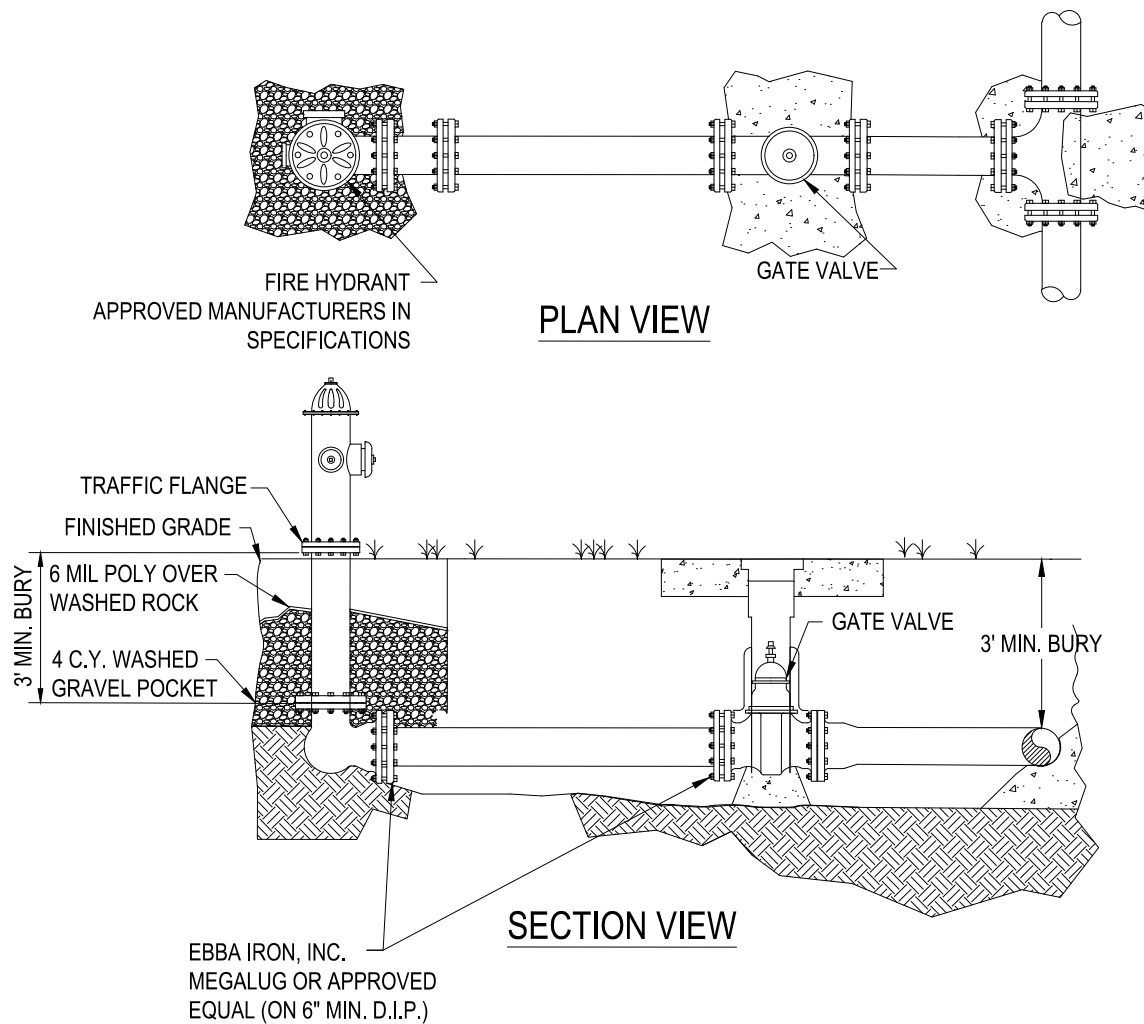
CONSTRUCTION STANDARD DETAILS



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NOTES:

1. FIRE HYDRANT TO BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. CONTRACTOR TO REMOVE CHAINS FROM F.H. CAPS.
2. VALVE IS REQUIRED TO BE POSITIONED AS CLOSE TO TEE AS POSSIBLE.
3. ON OPEN DITCH STREET, FIRE HYDRANT SHALL BE PLACED ON THE TOP BANK OPPOSITE OF THE DITCH FROM THE STREET.
4. ALL FITTINGS ON FIRE HYDRANT LEAD NEED TO BE EBBA IRON, INC. MEGALUG RETAINER GLANDS OR APPROVED EQUAL.
5. LEAD SHALL BE D.I.P. IN ALL CASES, SHALL BE 6" MIN. AND SHALL BE POLY WRAPPED.

FIRE HYDRANT SETTING - PERPENDICULAR TO MAIN

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS

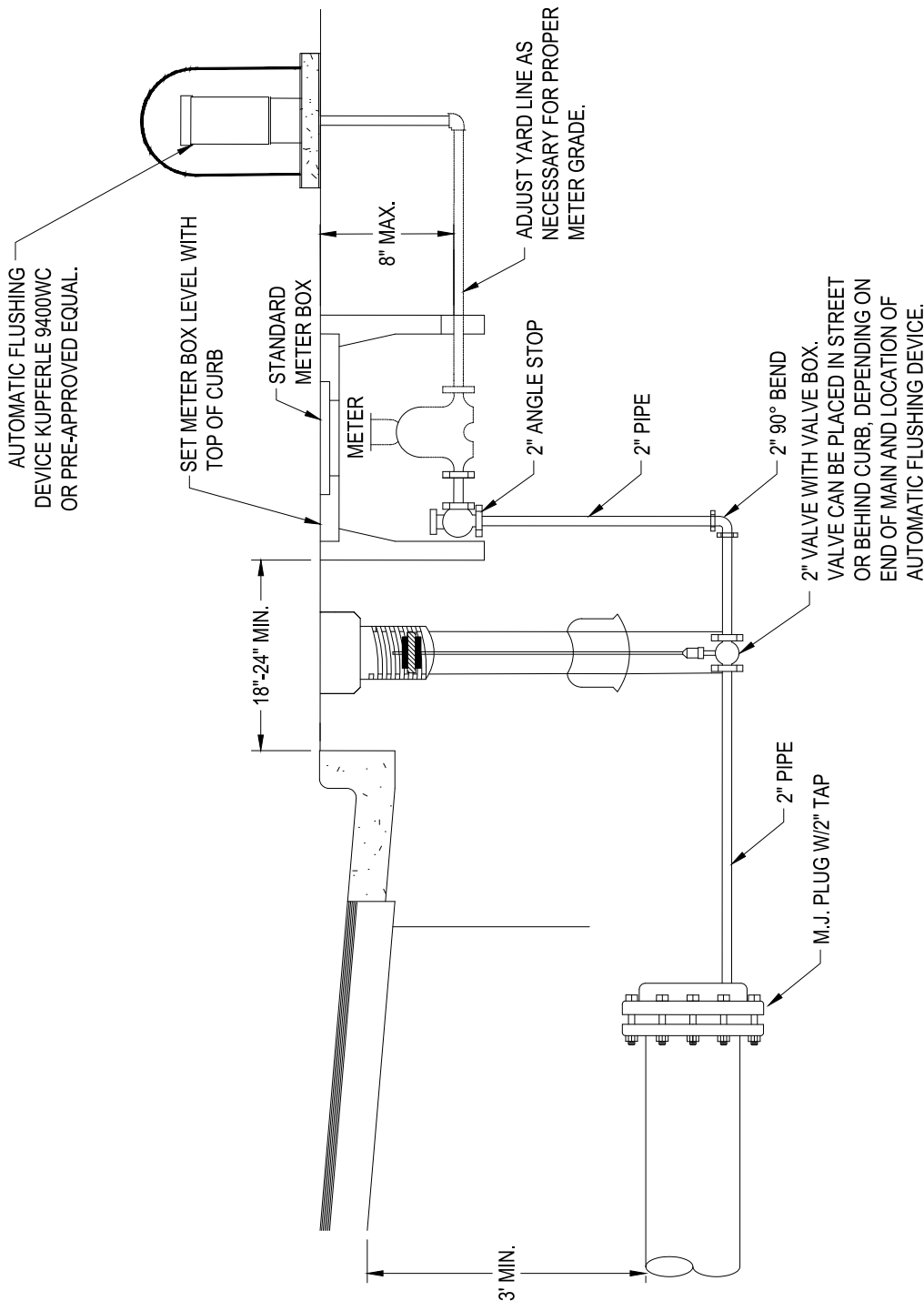


City of Copperas Cove

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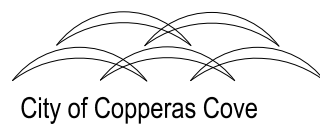


- NOTES:
1. ALL FITTINGS SHALL BE COPPER COMPRESSION FITTINGS.
 2. EROSION CONTROL AND AREA DRAINAGE MEASURES AT FLUSHING VALVE DISCHARGE MUST BE INSTALLED TO MEET SITE CONDITIONS.
 3. DISCHARGE OF CHLORINATED WATER MUST COMPLY WITH TCEQ REQUIREMENTS.
 4. THE METER IS TO BE LOCATED AS CLOSE TO THE MAIN AS POSSIBLE (MIN. 2'-0" CLEARANCE). LOCATIONS SHOULD BE REVIEWED BY THE INSPECTOR. VARIATIONS WILL BE APPROVED ON A CASE BY CASE BASIS ONLY.

DEAD END WATER MAIN AUTOMATIC FLUSHING VALVE

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

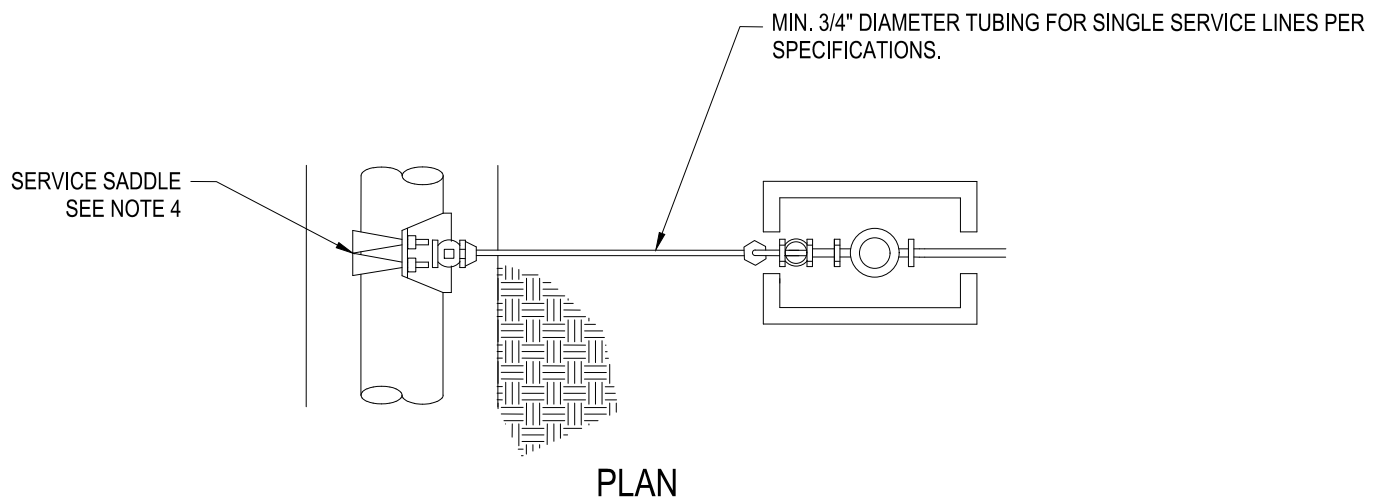
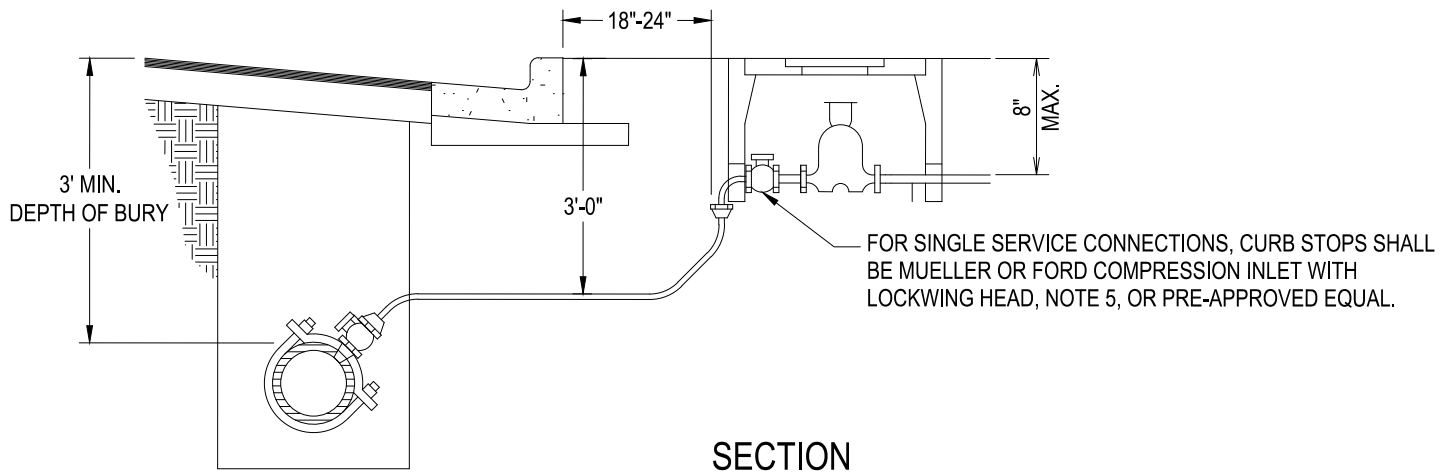
CONSTRUCTION STANDARD DETAILS



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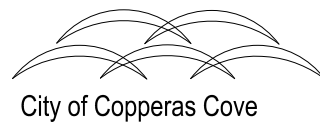
NOTES:

1. METERS 3" AND LARGER WILL BE INSTALLED IN A CONCRETE VAULT.
2. THE METER IS TO BE LOCATED AS CLOSE TO THE MAIN AS POSSIBLE. (MIN. 2'-0" CLEARANCE). LOCATIONS SHOULD BE REVIEWED BY THE CITY INSPECTOR. VARIATIONS MAY BE APPROVED ON A CASE BY CASE BASIS ONLY.
3. FITTINGS FOR COPPER TUBING OR POLYETHYLENE TUBING SHALL BE BRASS AND COMPRESSION TYPE.
4. SERVICE SADDLE FOR C.I.P., D.I.P, OR A.C. PIPE SHALL BE SMITH BLAIR 313 OR FORD F202.
SERVICE SADDLE FOR P.V.C PIPE SHALL BE SMITH BLAIR 317.
5. CURB STOP MUST HAVE A PLACE TO LOCK A PADLOCK WHEN ISOLATING THE LINE FOR SERVICE.

TYPICAL RESIDENTIAL METER SERVICE CONNECTION

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

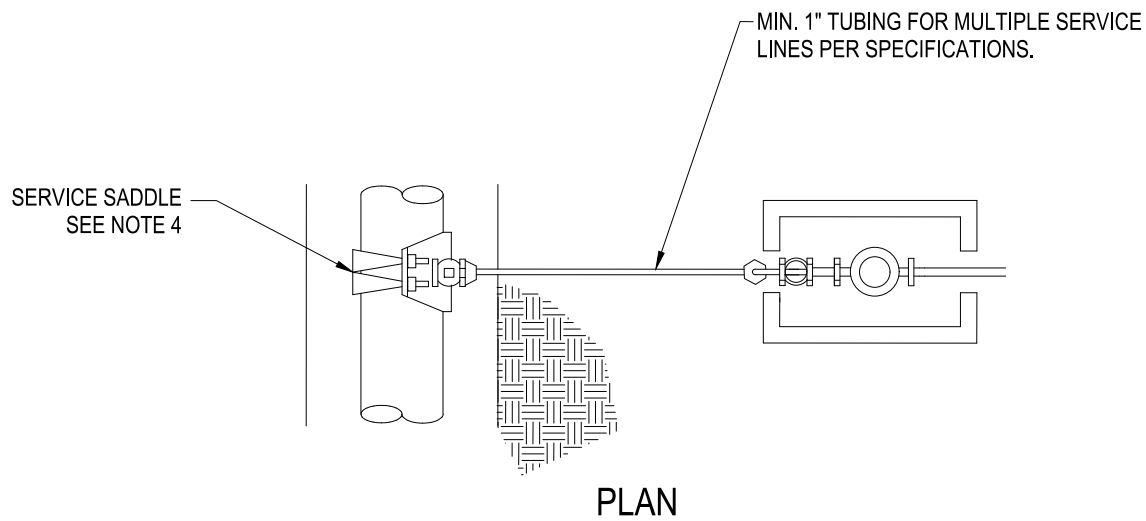
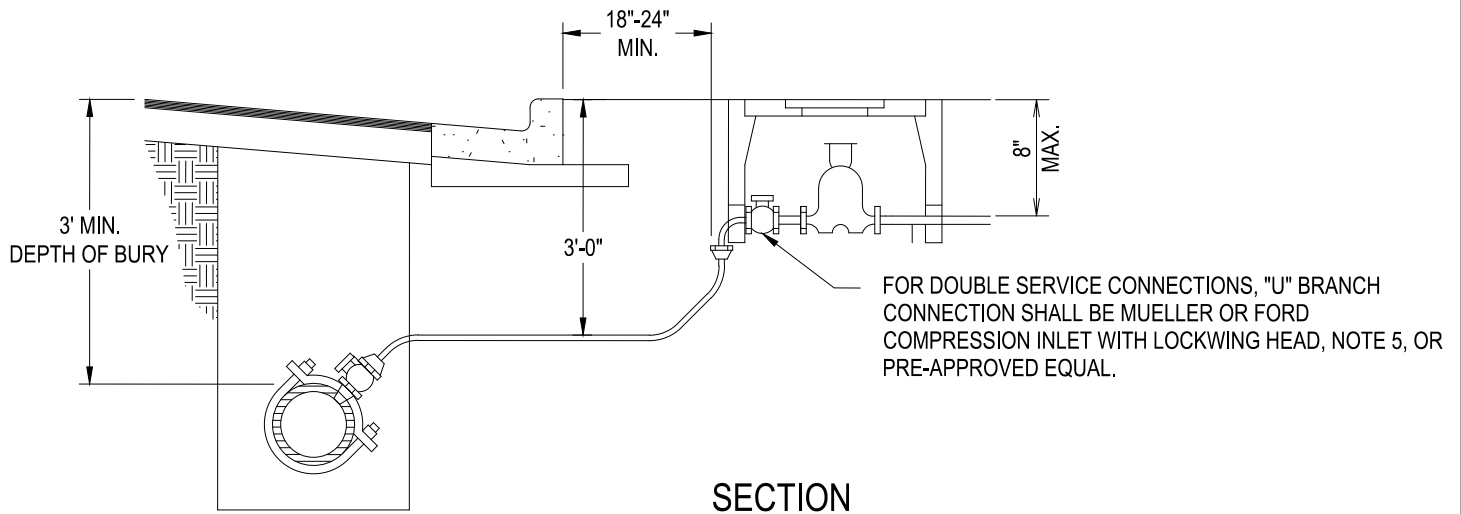
CONSTRUCTION STANDARD DETAILS



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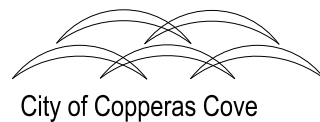
NOTES:

1. METERS 3" AND LARGER WILL BE INSTALLED IN A CONCRETE VAULT.
2. THE METER IS TO BE LOCATED AS CLOSE TO THE MAIN AS POSSIBLE. (MIN. 2'-0" CLEARANCE). LOCATIONS SHOULD BE REVIEWED BY THE CITY INSPECTOR. VARIATIONS MAY BE APPROVED ON A CASE BY CASE BASIS ONLY.
3. FITTINGS SHALL BE BRASS AND COMPRESSION TYPE.
4. SERVICE SADDLE FOR C.I.P., D.I.P, OR A.C. PIPE SHALL BE SMITH BLAIR 313 OR FORD F202.
SERVICE SADDLE FOR P.V.C PIPE SHALL BE SMITH BLAIR 317.
5. CURB STOP MUST HAVE A PLACE TO LOCK A PADLOCK WHEN ISOLATING THE LINE FOR SERVICE.

TYP. COMMERCIAL OR LG. RESIDENTIAL METER SERVICE CONNECTION

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

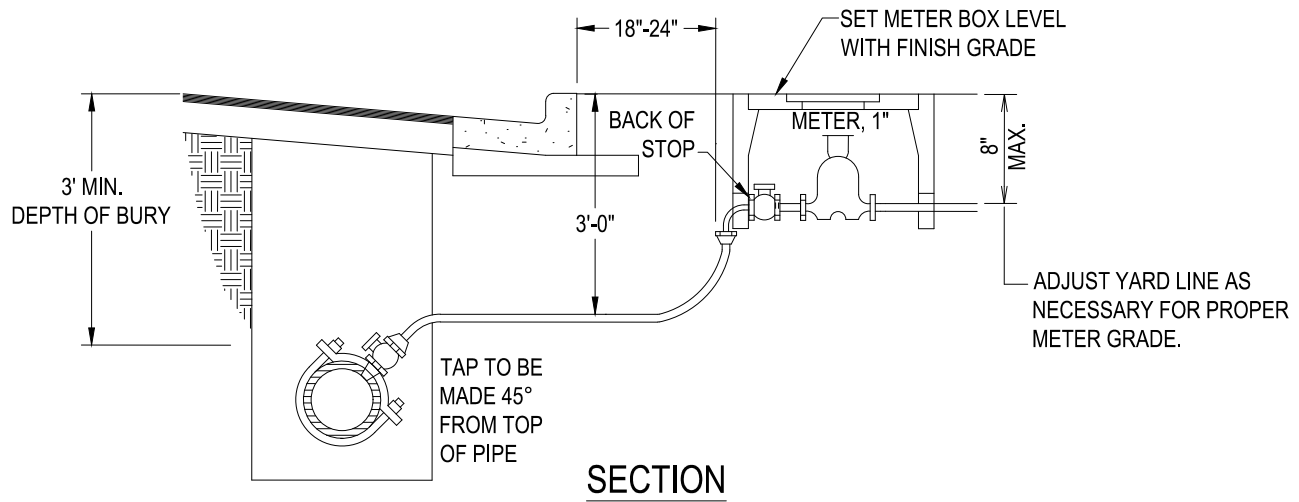
CONSTRUCTION STANDARD DETAILS



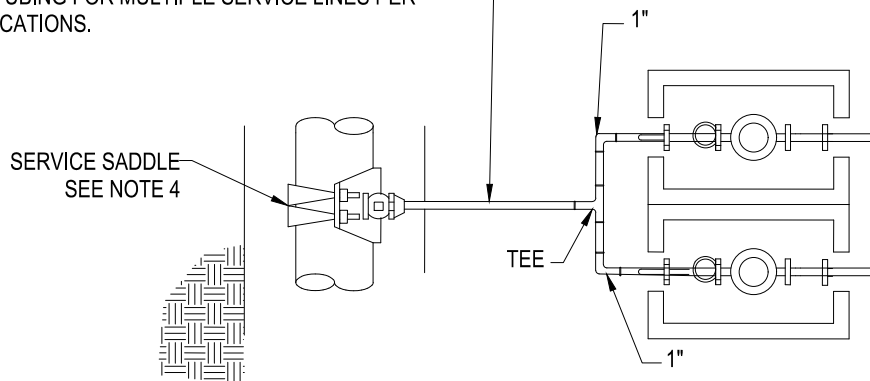
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MIN. 1" TUBING FOR MULTIPLE SERVICE LINES PER SPECIFICATIONS.



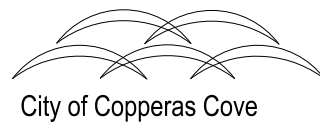
NOTES:

1. METERS 3" AND LARGER WILL BE INSTALLED IN A CONCRETE VAULT.
2. THE METER IS TO BE LOCATED AS CLOSE TO THE MAIN AS POSSIBLE. (MIN. 2'-0" CLEARANCE). LOCATIONS SHOULD BE REVIEWED BY THE CITY INSPECTOR. VARIATIONS MAY BE APPROVED ON A CASE BY CASE BASIS ONLY.
3. FITTINGS SHALL BE BRASS AND COMPRESSION TYPE.
4. SERVICE SADDLE FOR C.I.P., D.I.P, OR A.C. PIPE SHALL BE SMITH BLAIR 313 OR FORD F202.
SERVICE SADDLE FOR P.V.C PIPE SHALL BE SMITH BLAIR 317.
5. WHERE BOX IS EXPOSED TO TRAFFIC, USE CONCRETE BOX WITH CASE IRON TRAFFIC COVER WITH CAST IRON READER LID.

BULLHEAD METER

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

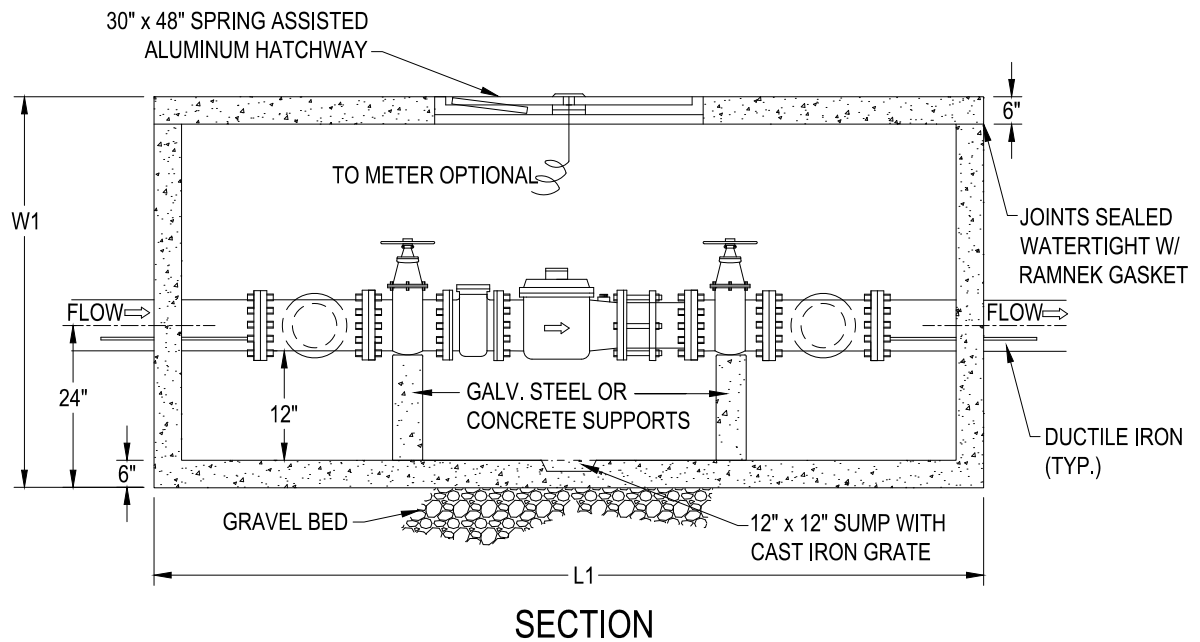
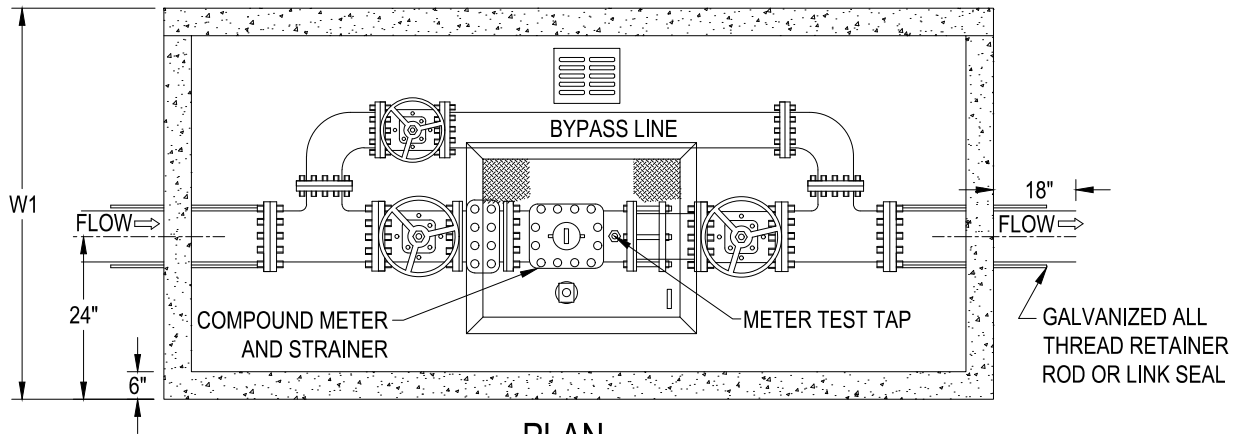
CONSTRUCTION STANDARD DETAILS



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**SPECIFICATIONS:**

CONCRETE: CLASS 1 CONCRETE W/ DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.

REINFORCEMENT: GRADE 60 REINFORCED. STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS, OR EQUAL.

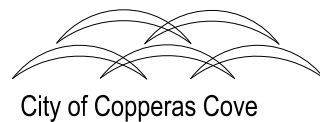
HATCHWAY: HINGED 1/4" ALUMINUM DIAMOND PLATE COVER WITH 1/4" EXTRUDED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH STAINLESS ALUMINUM HARDWARE.

DIMENSIONS						
MODEL	SIZE	BYPASS	L1	W1	H1	WEIGHT (LBS)
DMC-3	3"	3"	8'-8"	5'-0"	4'-6"	14,000
DMC-4	4"	4"	8'-8"	5'-0"	4'-6"	14,500
DMC-6	6"	6"	11'-0"	6'-0"	4'-6"	22,000

METER BOX DETAIL FOR 3" AND LARGER METERS

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

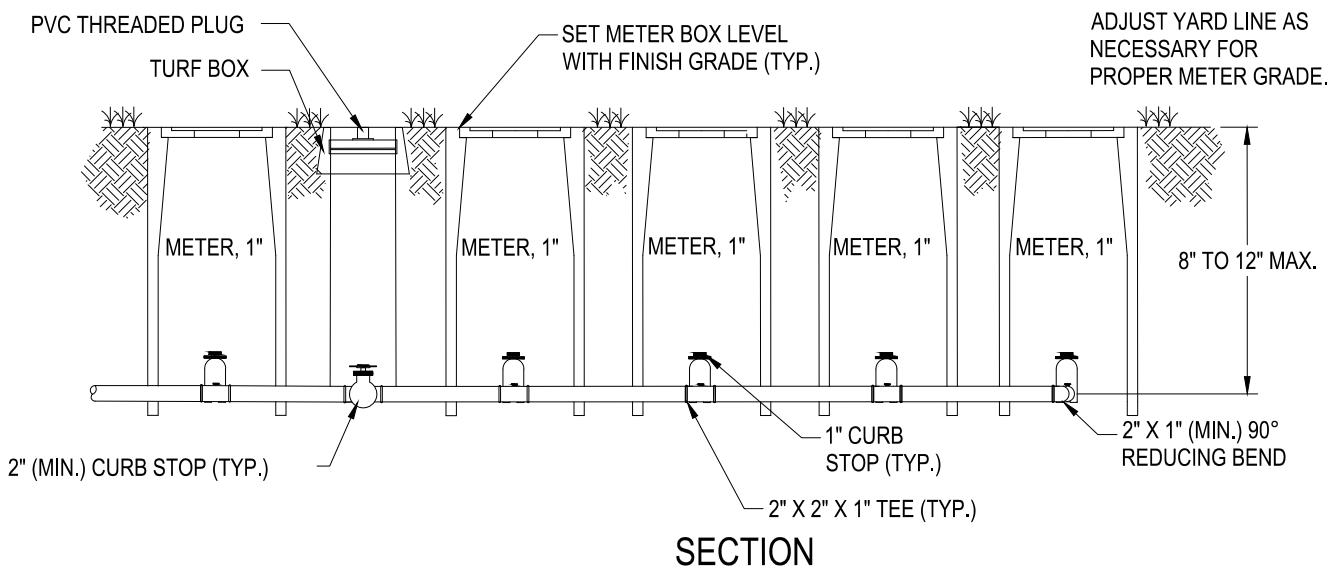
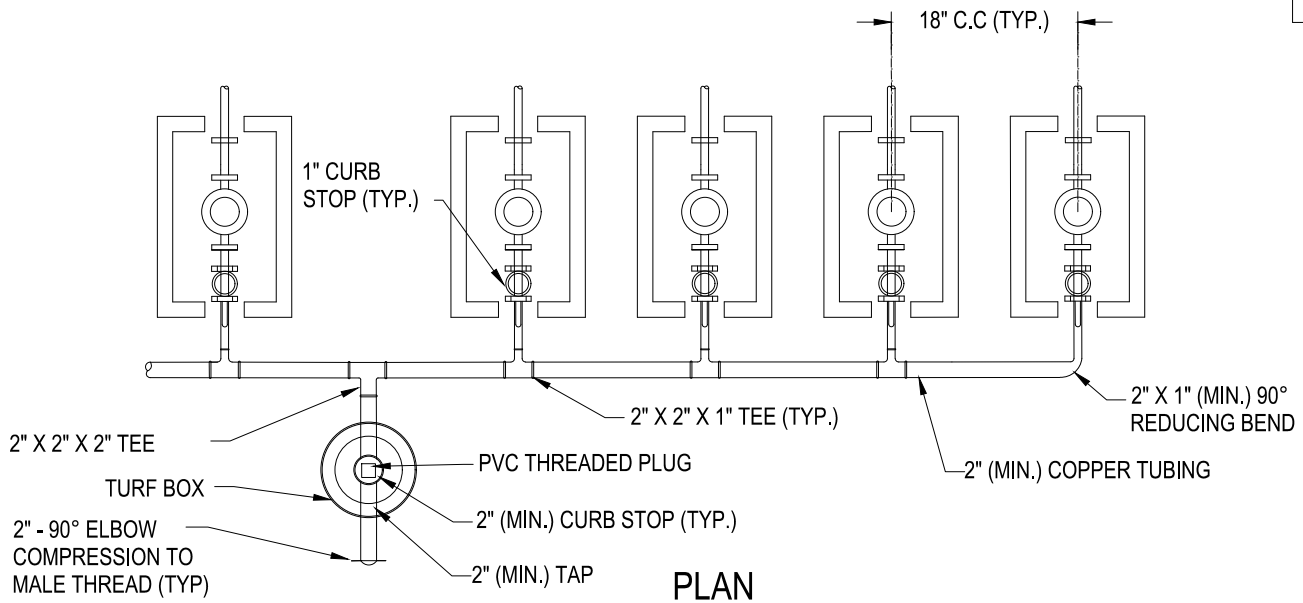
CONSTRUCTION STANDARD DETAILS



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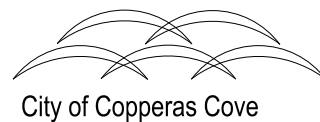
NOTES:

1. ALL FITTINGS SHALL BE BRASS OR COPPER COMPRESSION FITTINGS. NO PLASTIC FITTINGS SHALL BE PERMITTED.
2. CURB STOP VALVES SHALL BE MANUFACTURED BY MUELLER, FORD, OR PRE-APPROVED EQUAL. CURB STOP VALVES MUST HAVE A PLACE TO LOCK A PADLOCK WHEN ISOLATING THE LINE.

TYP. MANIFOLD

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

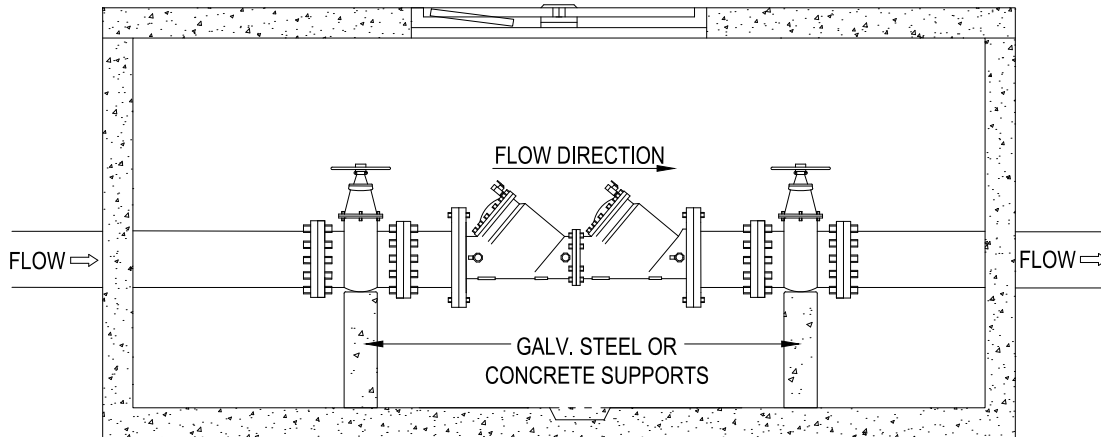
CONSTRUCTION STANDARD DETAILS



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SECTION

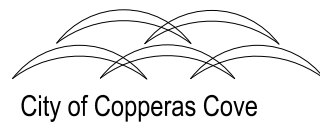
NOTES:

1. DOUBLE DETECTOR CHECK ASSEMBLY TO BE HOUSED IN AN APPROPRIATELY SIZED CONCRETE VAULT IN ACCORDANCE WITH THE SPECIFICATIONS.
2. ALL TEST PORTS SHALL HAVE PROTECTIVE CAPS.
3. UPON INSTALLATION ASSEMBLY MUST BE TESTED BY CERTIFIED TESTER AND RESULTS FURNISHED TO THE CITY OF COPPERAS COVE, WATER BILLING OFFICE. TEST RESULTS SHALL BE FURNISHED BY OWNER ON ANNUAL BASIS.
4. ALL NEW FIRE LINE SERVICES AND THOSE ENCOUNTERED IN A CONSTRUCTION PROJECT SHALL HAVE INSTALLED A LEAK DETECTOR DOUBLE CHECK VALVE WITH A DETECTION METER. THE DETECTOR IN A CONCRETE VAULT, AND WHERE POSSIBLE, CHECK VALVES SHALL BE INSTALLED IN RIGHT OF WAY.
5. VAULTS IN TRAFFIC AREAS (VEHICLE AND PEDESTRIAN) SHALL BE FLUSH. VAULTS IN NON-TRAFFIC AREAS SHALL EXTEND 6" ABOVE GRADE.
6. VAULTS IN COMMERCIAL APPLICATIONS MAY BE INSIDE THE BUILDING.

LEAK DETECTOR DOUBLE CHECK VALVE

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

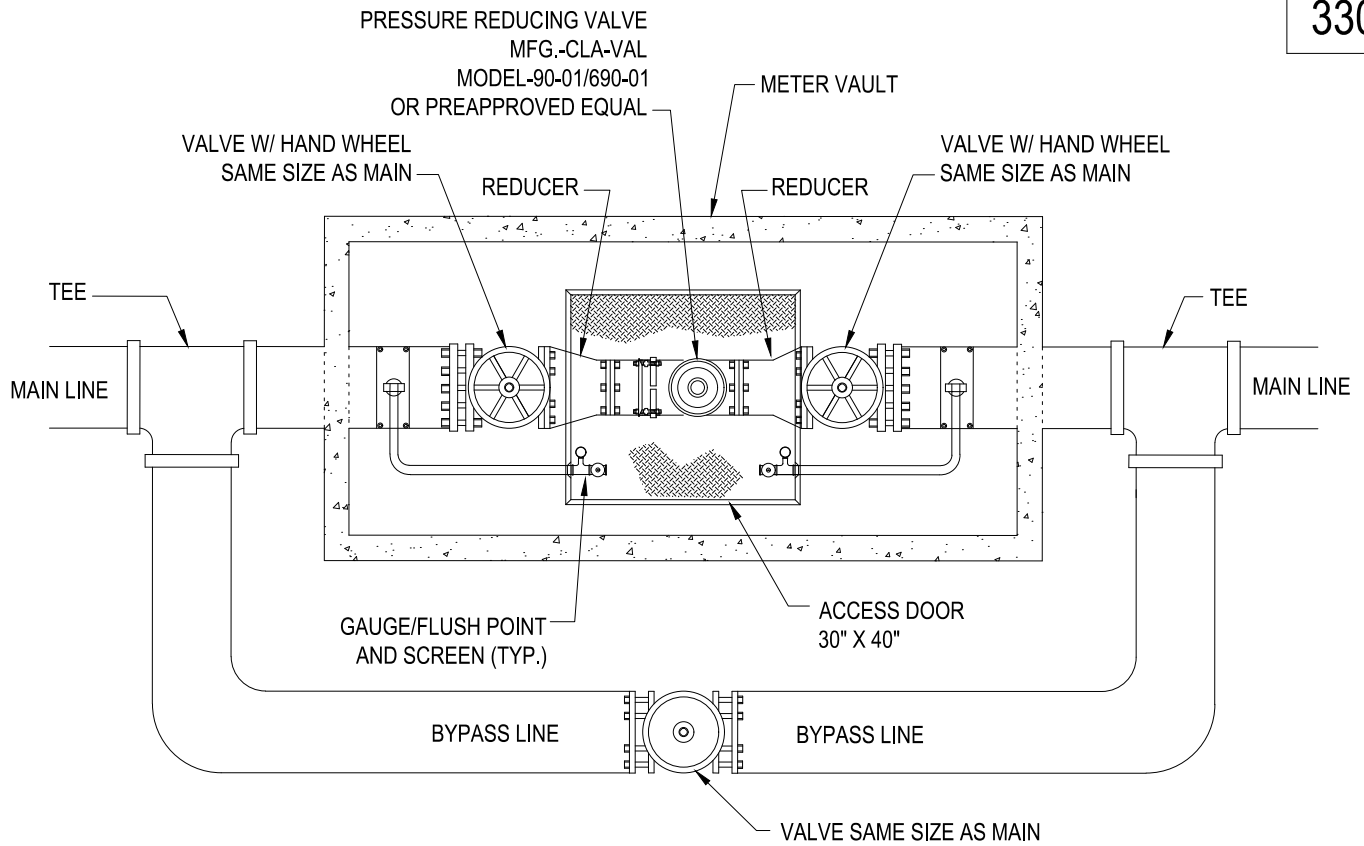
CONSTRUCTION STANDARD DETAILS



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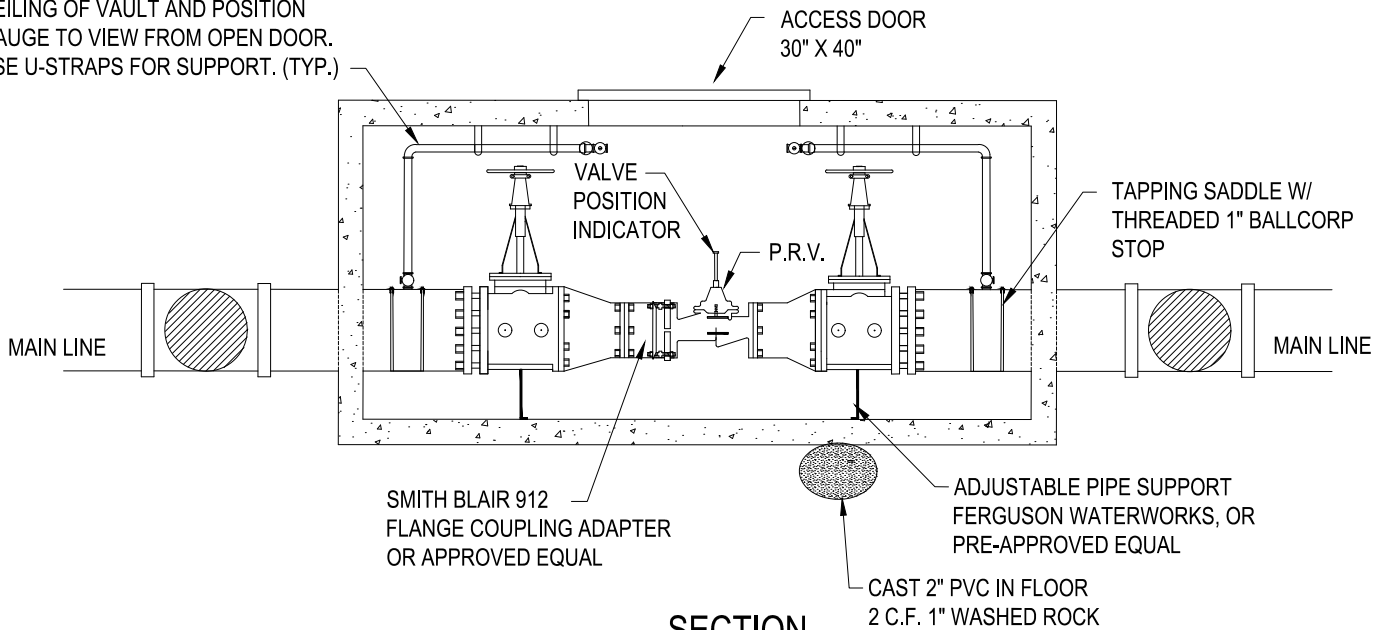
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PLAN

TAPPING SADDLE W/ THREADED 1" CORPORATION STOP. EXTEND TO CEILING OF VAULT AND POSITION GAUGE TO VIEW FROM OPEN DOOR. USE U-STRAPS FOR SUPPORT. (TYP.)

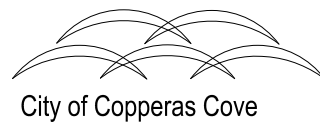


SECTION

PRV ASSEMBLY ON NEW MAIN

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS

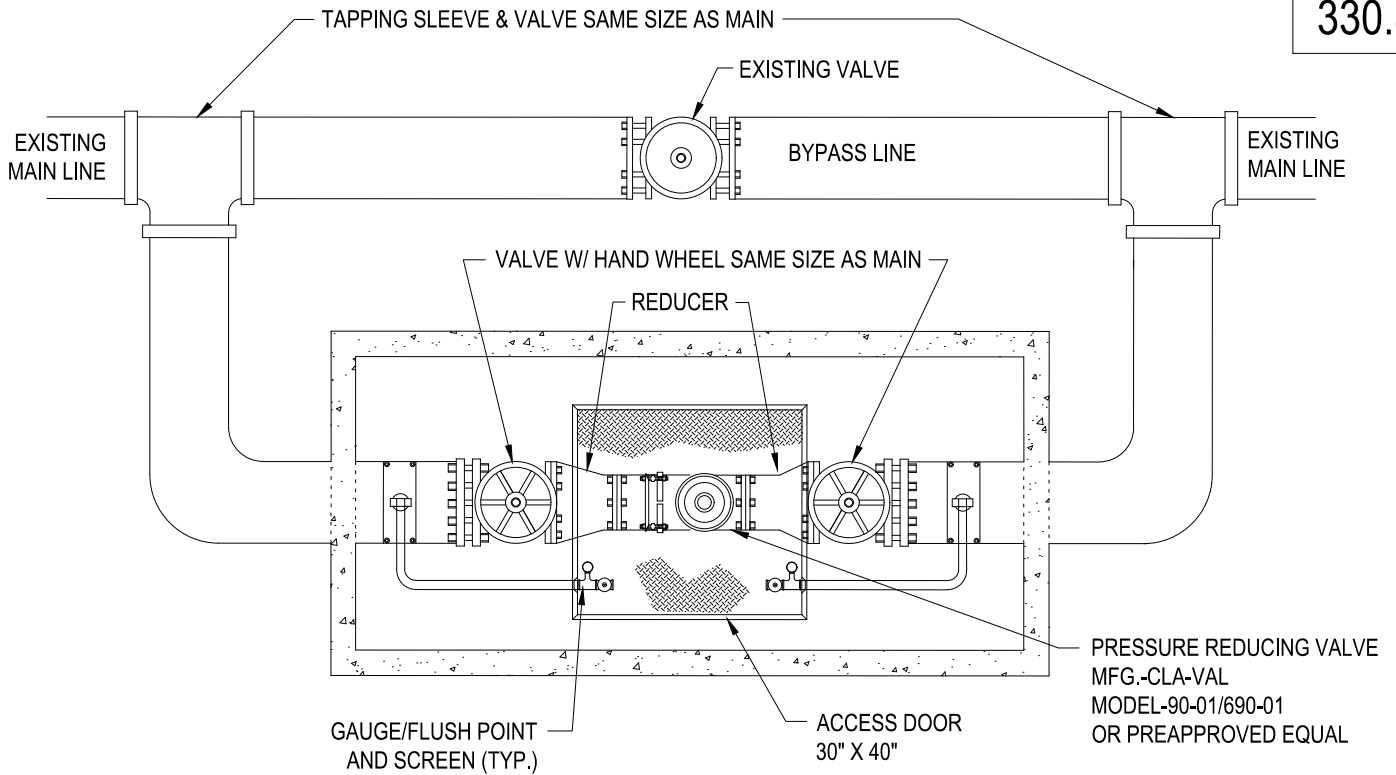


City of Copperas Cove

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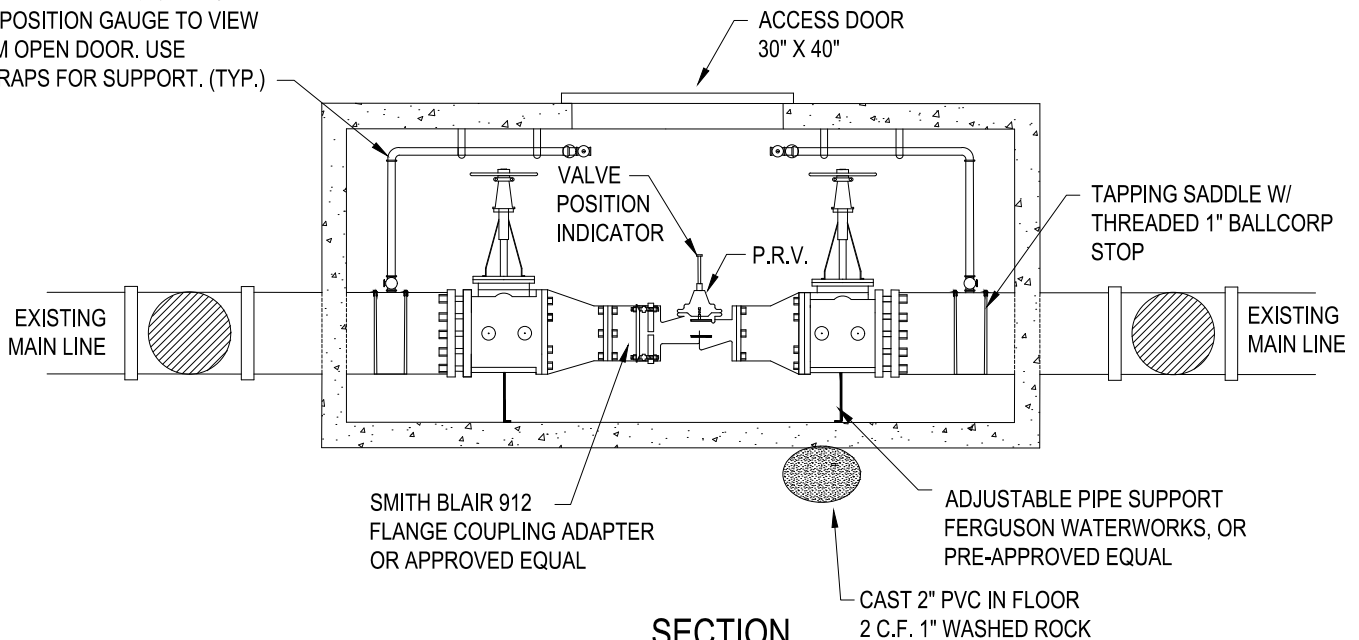
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PLAN

TAPPING SADDLE W/ THREADED 1" CORPORATION STOP. EXTEND TO CEILING OF VAULT AND POSITION GAUGE TO VIEW FROM OPEN DOOR. USE U-STRAPS FOR SUPPORT. (TYP.)

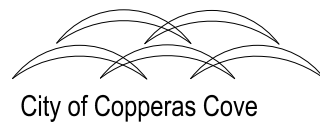


SECTION

PRV ASSEMBLY ON EXISTING MAIN

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

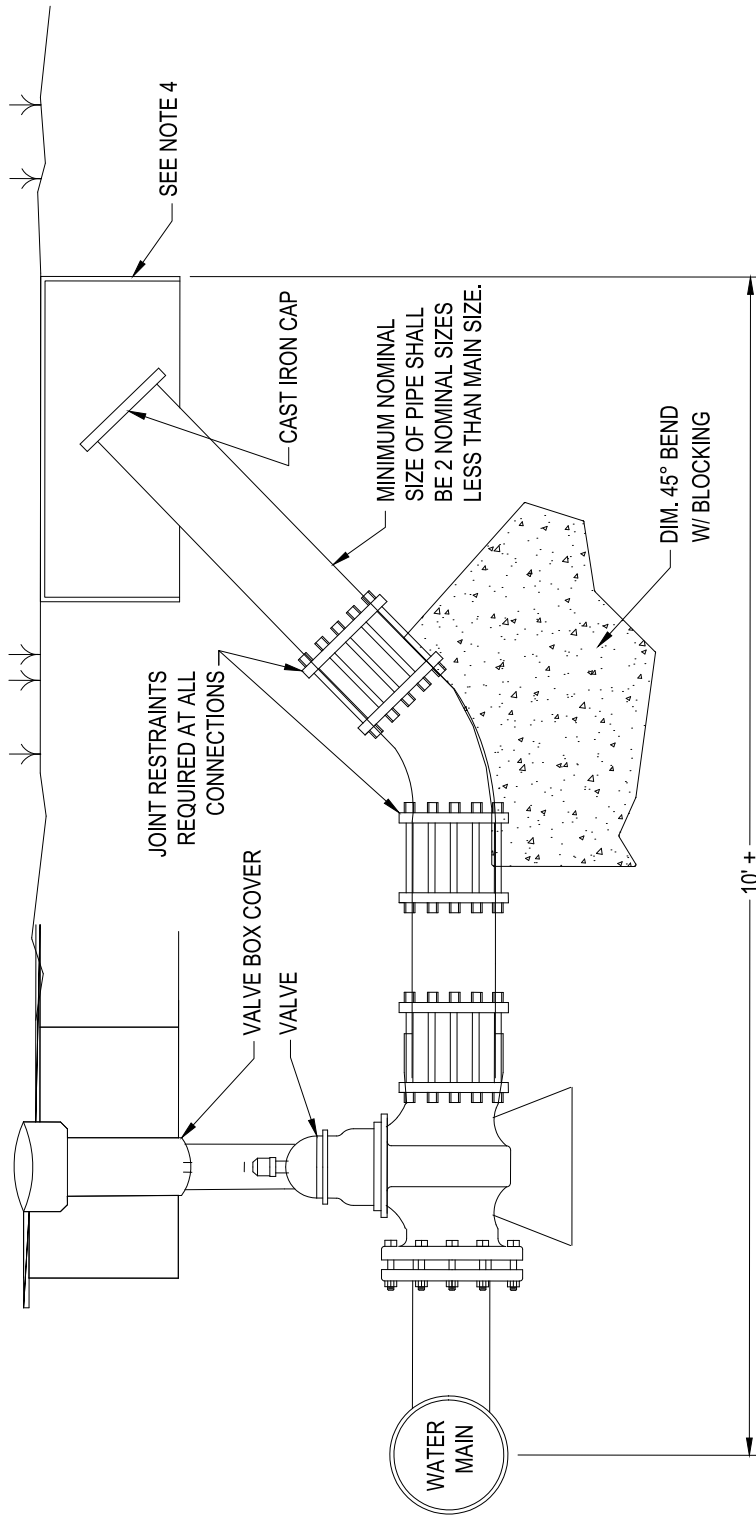
CONSTRUCTION STANDARD DETAILS



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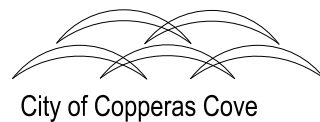


- NOTES:
1. EROSION CONTROL AND AREA DRAINAGE MEASURES AT BLOW-OFF DISCHARGE MUST BE INSTALLED TO MEET SITE CONDITIONS.
 2. DISCHARGE OF CHLORINATED WATER MUST COMPLY WITH TCEQ REQUIREMENTS.
 3. SIZE OF BLOW-OFF PIPING TO BE SPECIFIED BY DESIGN ENGINEER IN PROJECT PLANS.
 4. SIZE AND DESIGN OF BLOW-OFF ENCLOSURE SHALL SUIT THE SITE AND SYSTEM REQUIREMENTS.

BLOW OFF ASSEMBLY

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



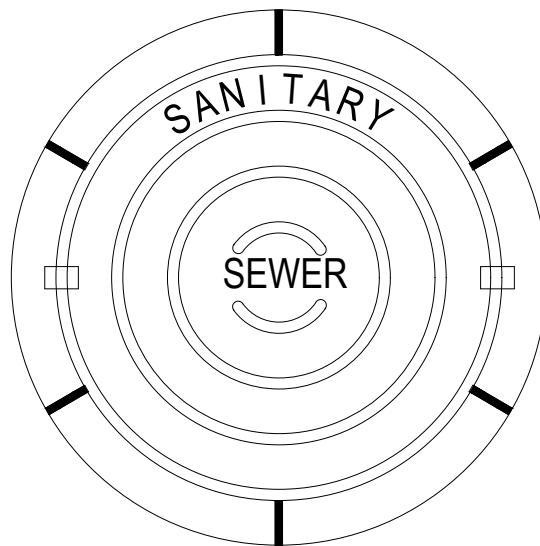
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CITY OF COPPERAS COVE

SEWER DETAILS

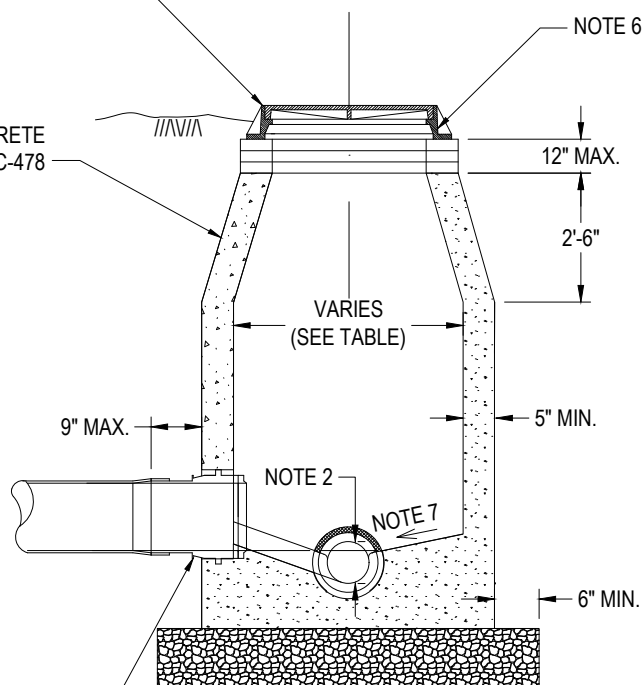


MANHOLE DIA.	MAIN SIZE
48 IN	$D \leq 15$ IN
60 IN	$18 < D \leq 24$ IN
72 IN	$30 < D \leq 36$ IN
84 IN	$D > 36$ IN

STD. DUCTILE IRON MANHOLE COVER
AND FRAME PER TCEQ 217, OR LATEST
VERSION THEREOF

SEE DETAIL 410.2 FOR MANHOLE RING
AND COVER

PRECAST REINFORCED CONCRETE
MANHOLE PER ASTM C-478



FLEXIBLE SEAL BOOT RESILIENT CONNECTOR
PER ASTM C-923 (TYP)

PRECAST MANHOLE SHALL BE PLACED
ON A BEDDING OF 6" MINIMUM OF 3/8"
TO 1" CRUSHED ROCK.

NOTE:

1. DEPTHS GREATER THAN 12' WILL REQUIRE 2 MATS OF REINFORCING STEEL IN THE BASE.
2. INVERT SHALL BE IN ACCORDANCE WITH DETAIL 410.7.
3. IN FLOODPLAINS OR AREAS OF CONCENTRATED FLOW, A BOLT DOWN WATER-TIGHT RING AND COVER SHALL BE USED, VENTED WHERE REQUIRED.
4. WARNING SIGN ONLY TO BE PLACED FOR MANHOLE IN UNDEVELOPED AREA, PER DETAIL 410.4.
5. CAST IN PLACE MANHOLES WILL REQUIRE A SEALED DESIGN SUBMITTED BY CONTRACTOR AND APPROVED BY CITY ENGINEER.
6. USE WRAPID SEAL OR PRE-APPROVED EQUAL BETWEEN RING/COVER, ADJUSTMENT RINGS, AND CONE SECTION.
7. SLOPE PER TCEQ REQUIREMENTS.

PRECAST MANHOLE

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS

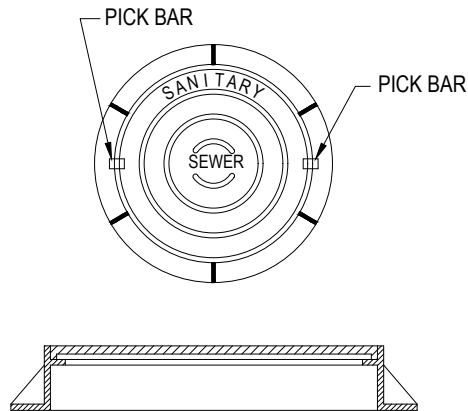


City of Copperas Cove

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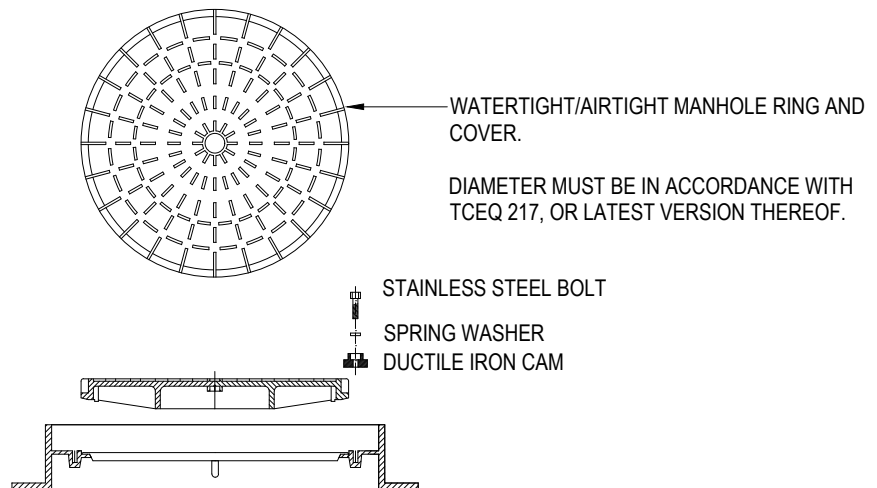
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MANHOLE RING AND COVER

NOTES:

1. STANDARD MANHOLE RING AND COVER SHALL BE NEENAH R-1557, EAST JORDAN IRON WORKS OR APPROVED EQUAL.
2. DIAMETER MUST BE IN ACCORDANCE WITH TCEQ 217, OR LATEST VERSION THEREOF.

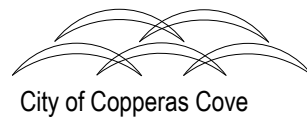


WATERTIGHT/AIRTIGHT MANHOLE RING AND COVER

MANHOLE RING AND COVER

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

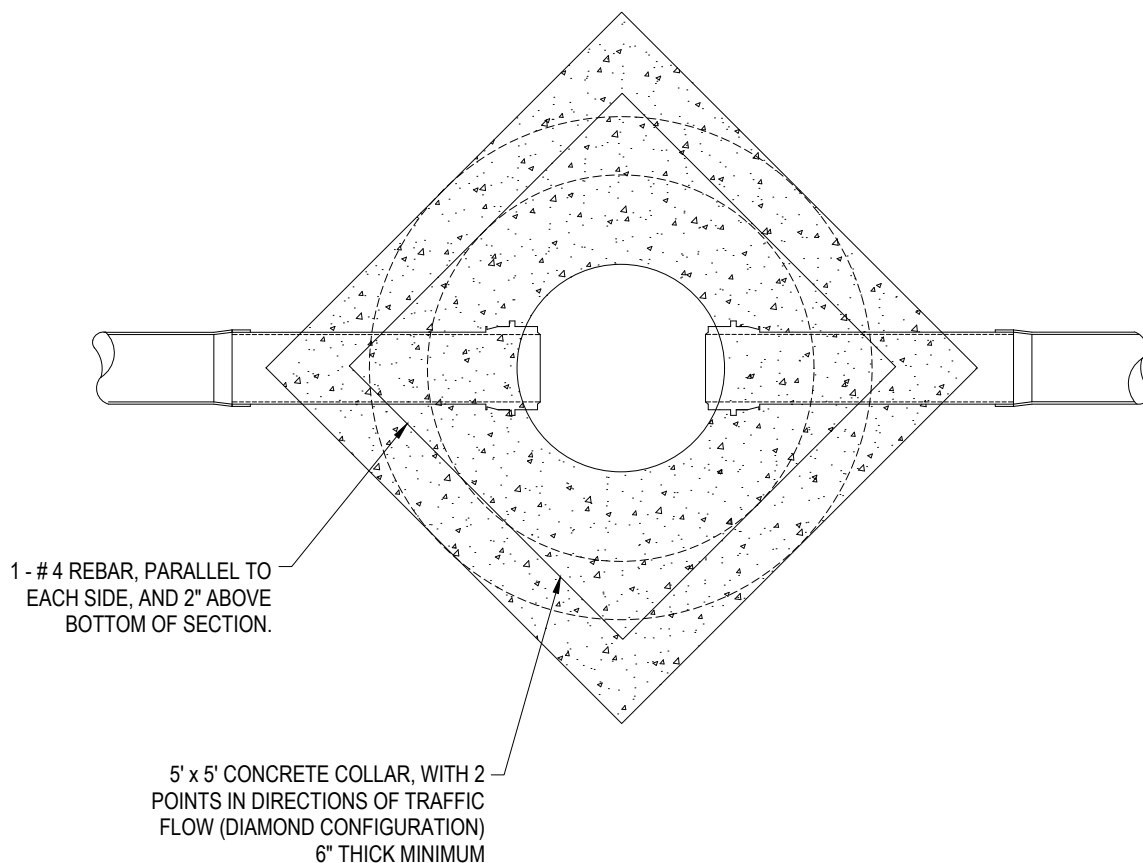
CONSTRUCTION STANDARD DETAILS



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NOTES:

1. MANHOLE DIAMETER MUST BE IN ACCORDANCE WITH TCEQ 217, OR LATEST VERSION THEREOF WITH RUBBER GASKET JOINTS CONFORMING TO THE ASTM C478 AND C443, UNLESS OTHERWISE APPROVED.
2. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON FRAME AND COVER (CONFORMING TO ASTM SPECIFICATION A48, CLASS 30).
3. ALL MANHOLES SHALL HAVE A CONCENTRIC CONE. WHERE CONFLICT WITH OTHER UTILITIES OCCURS, ECCENTRIC CONE IS ALLOWED.
4. MANHOLES MAY HAVE A FLAT LID, IF APPROVED BY THE CITY, WITH A MINIMUM 30" OPENING, CONFORMING TO ASTM C478, 5000 PSI CONCRETE, TRAFFIC BEARING, AND RUBBER GASKET JOINT CONFORMING TO ASTM C443.
5. INVERTS AND FLEXIBLE SEAL BOOTS, PER ASTM C923, SHALL BE CAST INTO BASE SECTION.
6. MINIMUM DROP BETWEEN INVERTS SHALL BE ONE-TENTH OF A FOOT (0.1').
7. GRADE RINGS WITH AN I.D. TO MATCH FRAMES MINIMUM CLEAR OPENING WITH A MAXIMUM GRADE RING HEIGHT OF 1'-0", 4" MINIMUM PAVED AREAS.

STANDARD MANHOLE INSIDE ROADWAY

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

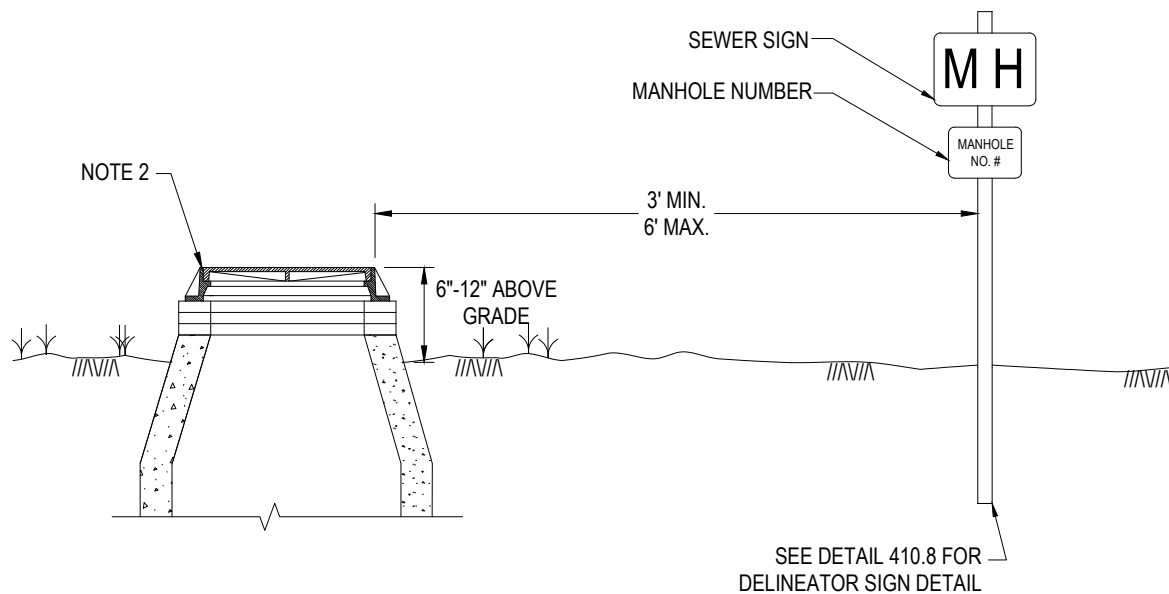
CONSTRUCTION STANDARD DETAILS



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NOTES:

1. A MANHOLE SIGN MOUNTED ON A SIGN POLE IS REQUIRED FOR MANHOLES IN UNDEVELOPED AREAS. THE CONTRACTOR WILL COORDINATE WITH THE CONSTRUCTION INSPECTOR TO HAVE UTILITIES INSTALL THESE SIGNS.
2. IN FLOODPLAINS OR AREAS OF CONCENTRATED FLOW, A BOLT DOWN WATER-TIGHT RING AND COVER SHALL BE USED, VENTED WHERE REQUIRED IN ACCORDANCE WITH TCEQ 217, OR LATEST VERSION THEREOF.

MANHOLE IN UNDEVELOPED AREA

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

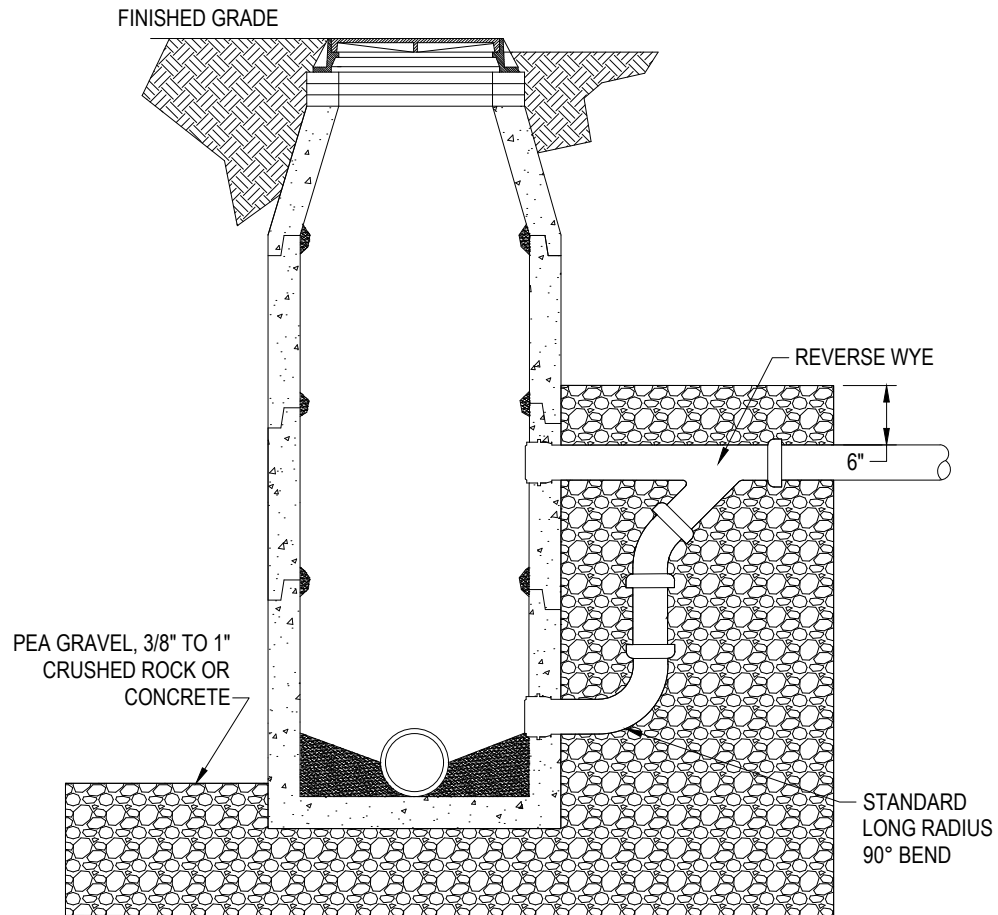
CONSTRUCTION STANDARD DETAILS



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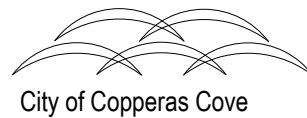
NOTES:

1. DROP CONNECTIONS SHALL BE REQUIRED AT LOCATIONS REQUIRED UNDER TCEQ 217, OR LATEST REVISION THEREOF.
2. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE A MANHOLE TO DIRECT INFLUENT INTO A FLOW STREAM.
3. WHEN P.V.C. IS USED IN SANITARY SEWER LINES, SOLVENT TYPE JOINT P.V.C. FITTINGS MAY BE UTILIZED IN THE DROP ASSEMBLY ONLY.
4. INTERNAL DROP CONNECTIONS ARE NOT PERMITTED.

DROP MANHOLE PIPING

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

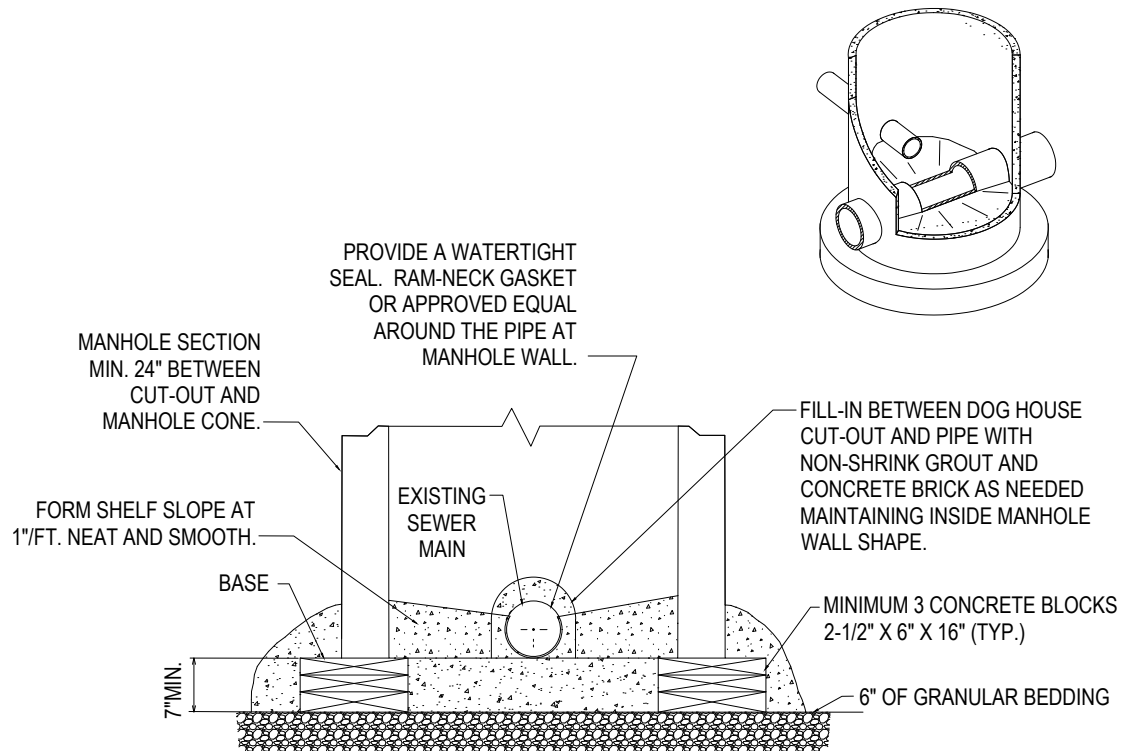
CONSTRUCTION STANDARD DETAILS



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NOTE:

1. FLOW SHALL BE MAINTAINED DURING CONSTRUCTION.
2. THIS DETAIL TO BE USED WHEN A 6" OR LARGER LATERAL NECESSITATES CONSTRUCTION OF A NEW MANHOLE.
3. FOR ADDITIONAL STANDARDS NOT SHOWN, SEE PRECAST MANHOLE DETAIL 410.1 OR CAST IN PLACE MANHOLE DESIGN TO BE PROVIDED BY DESIGN ENGINEER AND APPROVED BY CITY ENGINEER AND PUBLIC WORKS DIRECTOR.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORT OF EXISTING SEWER DURING INSTALLATION OF MANHOLE.
5. DOGHOUSE OPENING MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE; OTHERWISE, THE OPENING MUST BE CAST. SIZE, LOCATION, AND ANGLE OF ENTRY SHALL BE AS REQUIRED BY PLANS.
6. EXCAVATE TRENCH TO MIN. 13" BELOW BOTTOM OF EXISTING PIPE, COMPACT SUBGRADE. PLACE AND COMPACT 6" OF GRANULAR BEDDING. MONOLITHIC POUR OF MIN. 7" DEPTH, 6 SACK TOPPING MIX TO BE PLACED INSIDE, UNDER, AND OUTSIDE MANHOLE BARREL FROM SURFACE OF BEDDING, AROUND CONCRETE BLOCK RISERS, TO A POINT APPROXIMATELY AT THE SPRING LINE OF THE EXIST. PIPE.
7. DURING THE SAME POUR, THE FINISH MANHOLE SHELF SHALL BE FORMED AND FINISHED AROUND THE BARREL AND THE EXISTING PIPE AS SHOWN.
8. AFTER CONCRETE SHELF HAS CURED, THE EXISTING PIPE SHALL BE SAW-CUT ON BOTH SIDES TO THE FINISHED SHELF GRADE AND REMOVED. THE EXISTING PIPE SHALL FORM THE TROUGH OF THE MANHOLE AS SHOWN. FILE CUT THE PIPE TO GIVE SMOOTH EDGES.

DOGHOUSE MANHOLE

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS

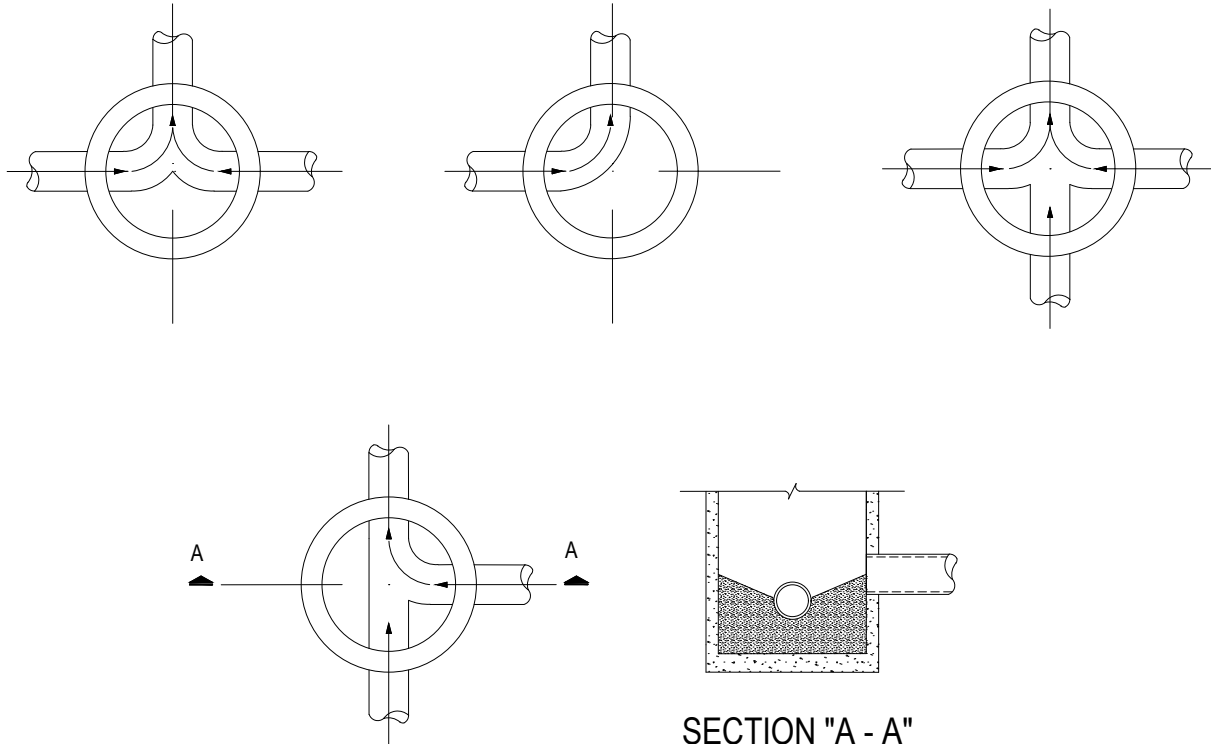


City of Copperas Cove

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SECTION "A - A"

NOTES:

1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. HYDRAULIC SLIDES SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOW.
3. IF FUTURE DEVELOPEMENT/STUBOUTS ARE ANTICIPATED, THE INVERT OF THE MANHOLE SHALL BE CAST ACCORDINGLY.
4. SLOPE MANHOLE BENCH ACCORDING TO TCEQ REQUIREMENTS FROM MANHOLE WALL TO CHANNEL.
5. INVERT DEPTHS SHALL BE AS FOLLOWS:

PIPE DIAMETER

D ≤ 15"

15" < D ≤ 24"

D > 24"

INVERT DEPTH (BENCH)

1/2 LARGEST PIPE DIA.

3/4 LARGEST PIPE DIA.

EQUAL TO LARGEST PIPE DIA.

FLOW PATTERNS FOR INVERT CHANNELS

CITY OF COPPERAS COVE

DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS

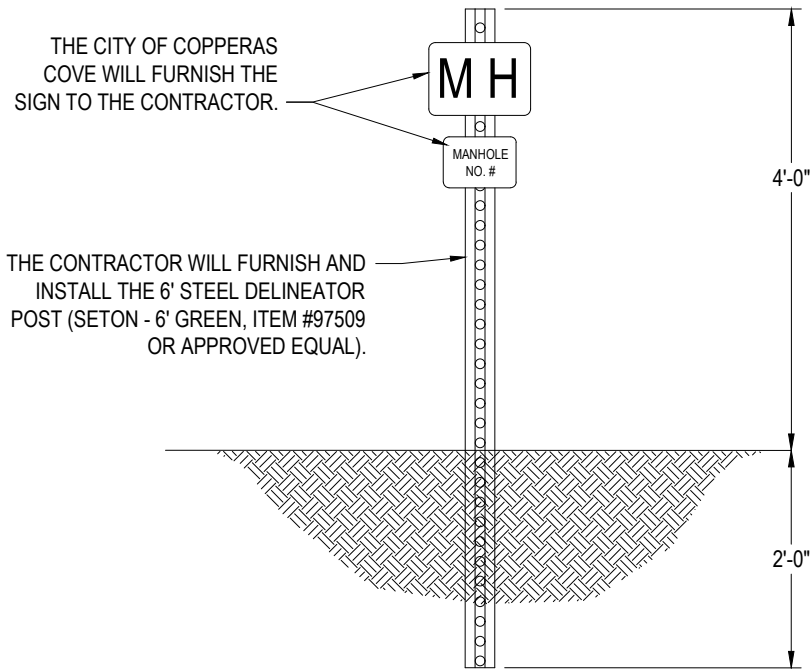


City of Copperas Cove

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MANHOLE DELINEATOR POST DETAIL

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

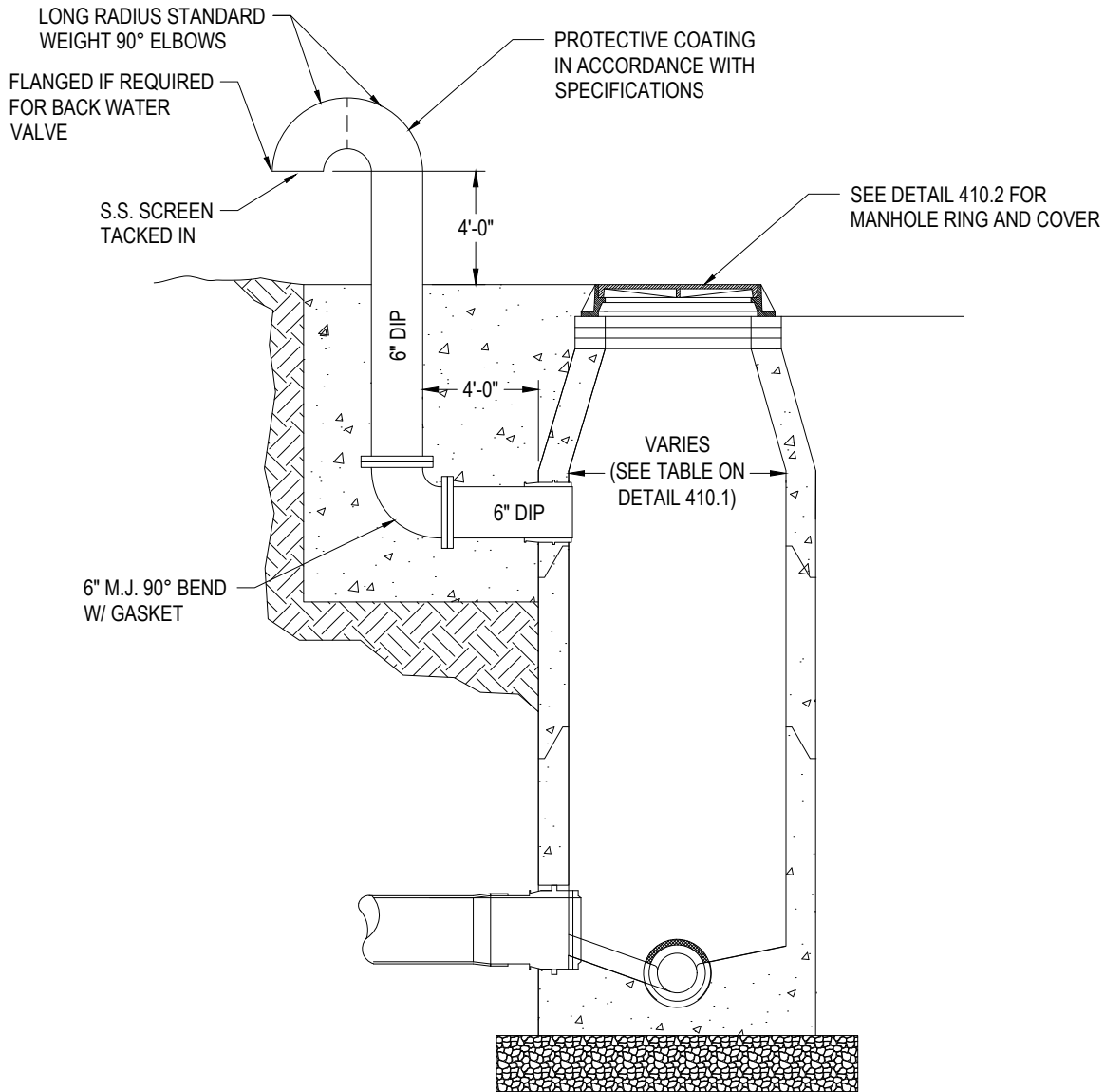
CONSTRUCTION STANDARD DETAILS



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NOTE:

1. SEE PRECAST MANHOLE DETAIL 410.1.
2. VENT OPENING TO BE MIN. 4' ABOVE FINISHED GRADE OR MIN. 1' ABOVE 100 YEAR FLOOD PLAIN ELEVATION. WHICHEVER IS HIGHER.

MANHOLE VENT

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



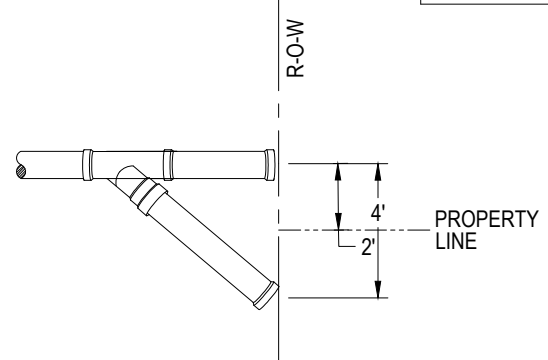
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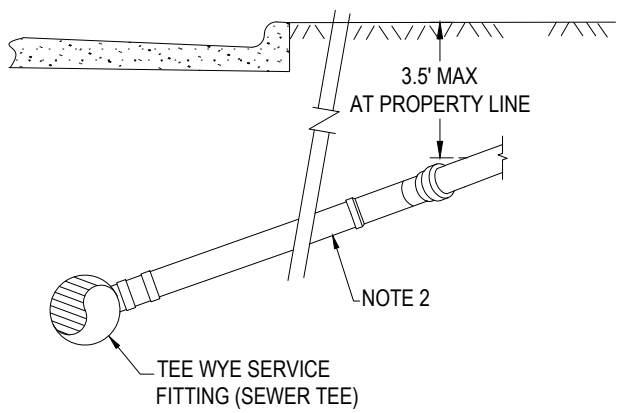
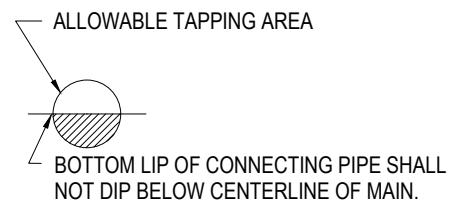
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NOTES:

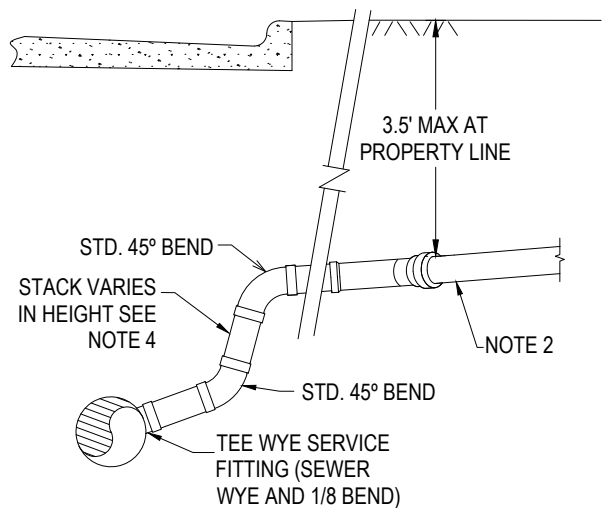
- 1. MARK EACH SERVICE END WITH A METAL T-POST PAINTED GREEN OR A 36" WOODEN LATH.
- 2. ALL MATERIAL SHALL BE ASTM D3034 SDR26 W/ GASKETS. SLOPE SHALL BE PER TCEQ 217.
- 3. ALL SERVICE CONNECTIONS & EXTENSIONS ARE TO BE INSTALLED WITH THE MAIN LINE CONSTRUCTION.
- 4. WHEN SERVICE CONNECTION IS DEEP, CONTRACTOR MUST PLACE A VERTICAL STACK THAT SHALL BE BROUGHT WITHIN 3-1/2 FEET BELOW NATURAL GROUND.



PLAN



STANDARD CONNECTION PROFILE



DEEP CONNECTION PROFILE

SANITARY SEWER SERVICE CONNECTION

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS

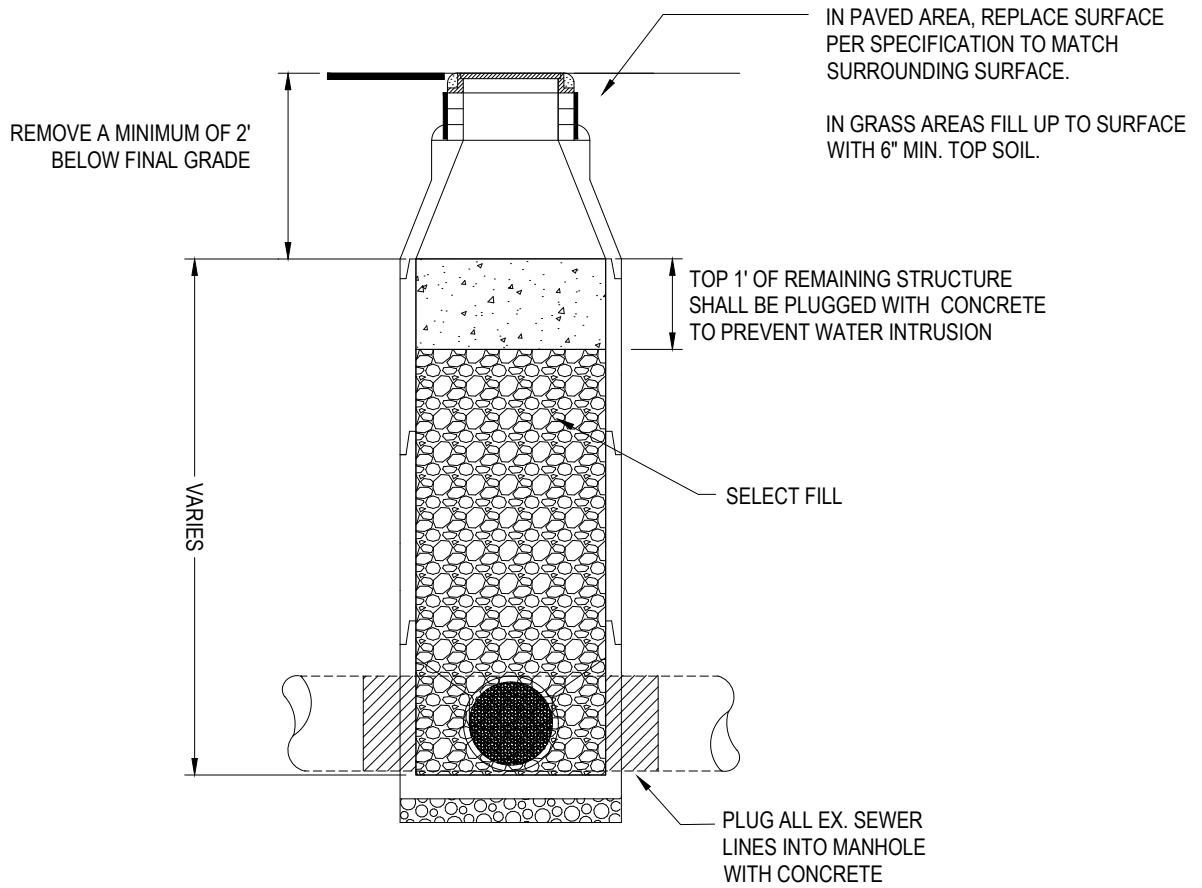


City of Copperas Cove

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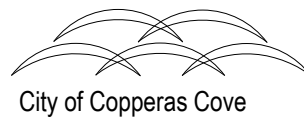
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MANHOLE ABANDONMENT

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



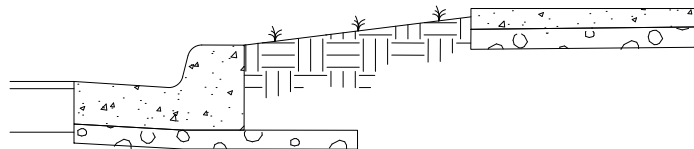
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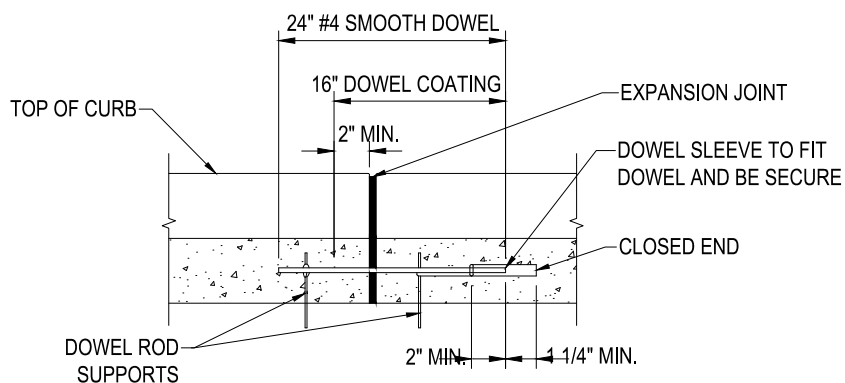
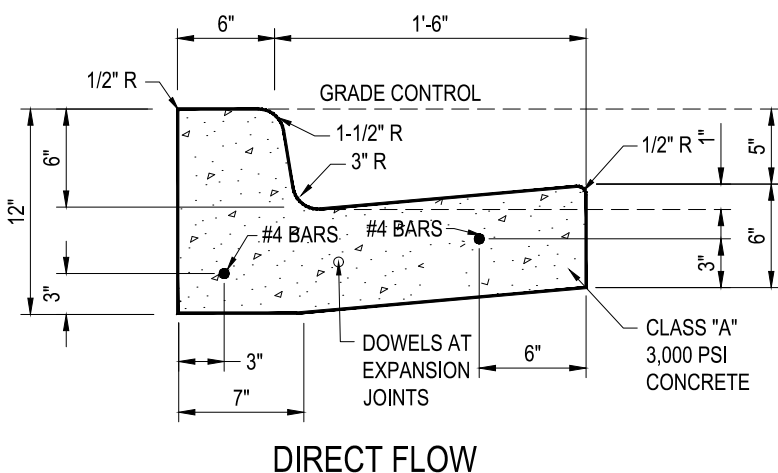
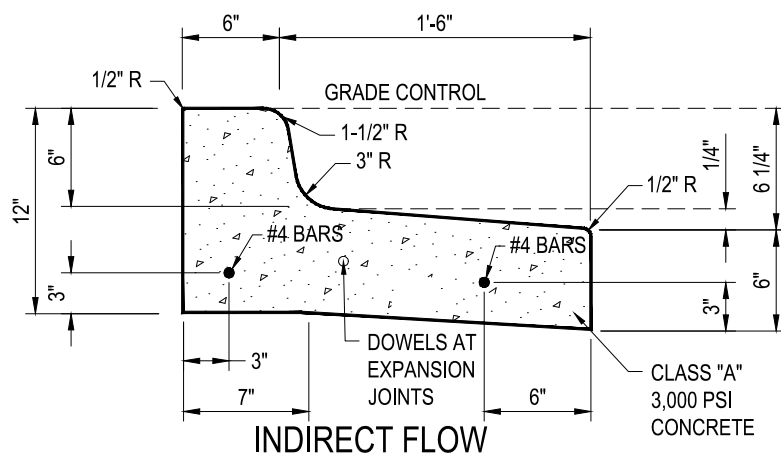
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CITY OF COPPERAS COVE

STREET DETAILS





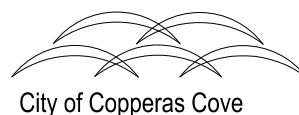
NOTES:

1. ALL WORK AND MATERIAL SHALL CONFORM TO ASTM A615, A615M, C309 AND D1752. BROOM FINISH EXPOSED SURFACE.
2. CONTRACTION JOINT SPACING 10' MAX.
3. EXPANSION JOINT MATERIAL AS PER STD. ASTM D-1751, WITH 40' MAX. SPACING.
4. 1/2" EXPANSION JOINT MATERIAL SHALL BE PROVIDED WHERE CURB IS ADJACENT TO SIDEWALK, DRIVE APPROACHES, RIP-RAP, AND RADII.
5. EXPANSION JOINT INTERVALS MAX. 40' AND AT CURB INLETS, DRIVE APPROACHES, POINTS OF CURVATURE, AND SIDEWALK EXPANSION JOINTS.
6. TRANSITIONS BETWEEN CURBS OR DIFFERING CROSS SECTIONS SHALL OCCUR OVER A 20 FOOT LENGTH AS APPROVED BY THE CITY OF COPPERAS COVE.
7. ALL CONCRETE SHALL BE CLASS A, 3000 PSI.
8. ALL SURFACES THAT ARE CHIPPED OR OTHERWISE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED.
9. ONE OF THE FOLLOWING SCHEMES OF REINFORCEMENT SHALL BE REQUIRED. THE MANNER OF PLACEMENT AND LOCATION SHALL BE TO THE SATISFACTION OF THE ENGINEER OR THE CITY OF COPPERAS COVE.
 - A. MANUALLY FORMED CURB AND GUTTER SHALL HAVE LONGITUDINAL REINFORCING BARS AS FOLLOWS: TWO #4 BARS SHALL BE PLACED 2" FROM BOTTOM OF GUTTER.
 - B. STEEL REINFORCEMENT IS OPTIONAL FOR MACHINE LAID CURB.
10. REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 15 INCH TRAVERSE SLOPE OF GUTTER SHALL CONFORM TO ADA REQUIREMENTS AT ALL PEDESTRIAN CROSSINGS.

STANDARD CURB AND GUTTER

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



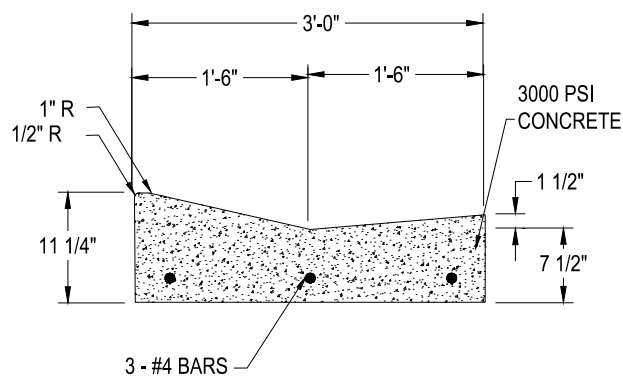
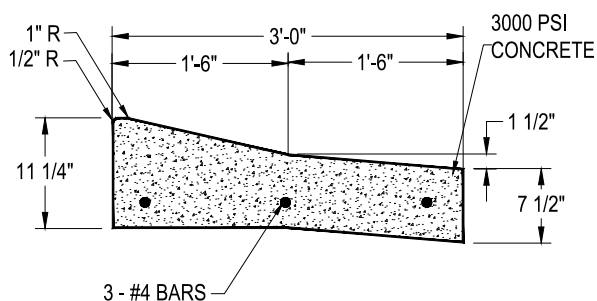
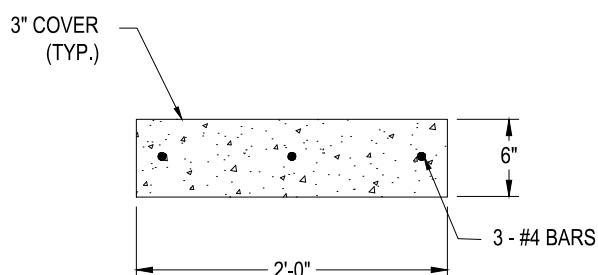
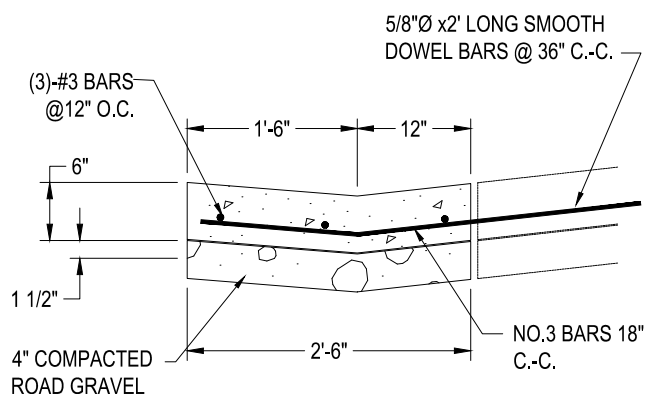
City of Copperas Cove

SCALE : N.T.S.

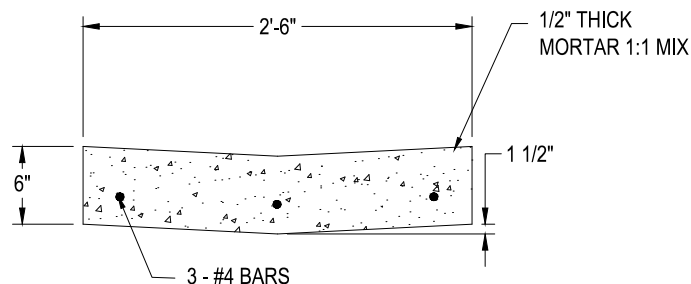
DATE : APRIL 2018

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510.2

DIRECT FLOWINDIRECT FLOW**MOUNTABLE CURB**

NOTE:
CRACK CONTROL (DUMMY) JOINTS EVERY 10'.
CONSTRUCTION JOINT W/ EXPANSION BOARD EVERY 50'.

DIRECT FLOW, LAYDOWN CURB & GUTTER**RIBBON CURB****VALLEY CURB**

NOTE:
THE CURBS SHOWN ON THIS DETAIL MAY ONLY BE USED WITH
THE PERMISSION OF THE CITY OF COPPERAS COVE
ENGINEERING DEPARTMENT.

ALTERNATE CURBS: LAYDOWN, MOUNTABLE, RIBBON, & VALLEY

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

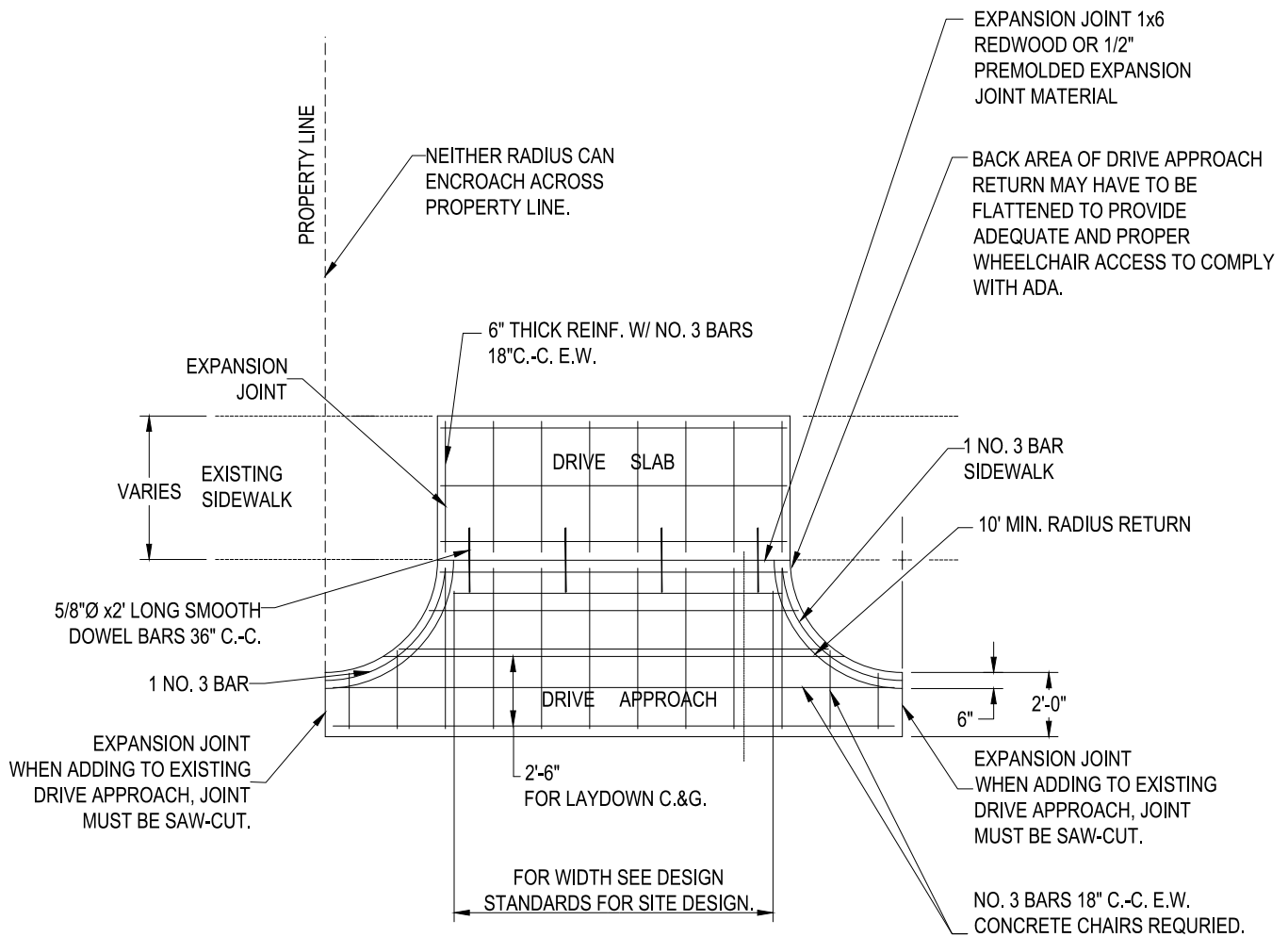
CONSTRUCTION STANDARD DETAILS

City of Copperas Cove

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NOTE:
COMMERCIAL TYPE DRIVE APPROACHES AND TURN-OUTS (i.e. for business property) REQUIRE CITY TRAFFIC APPROVAL.

COMMERCIAL DRIVE APPROACH

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



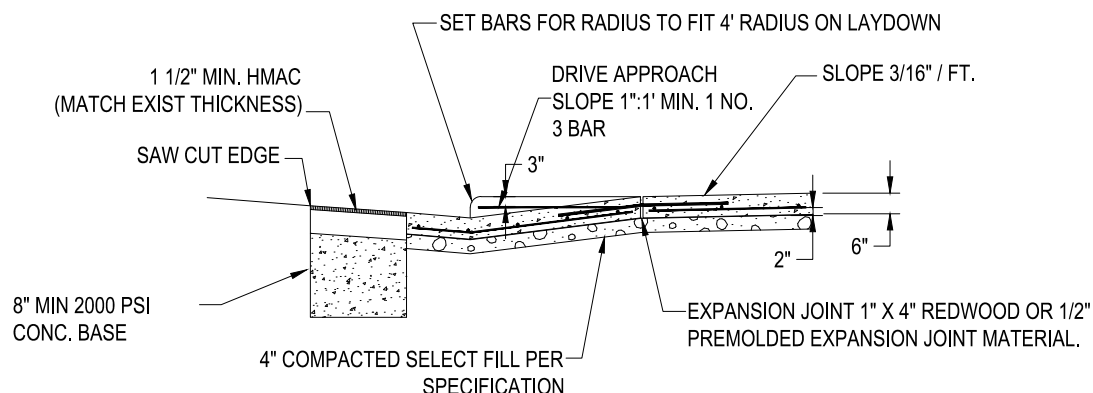
SCALE : N.T.S.

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NOTE:

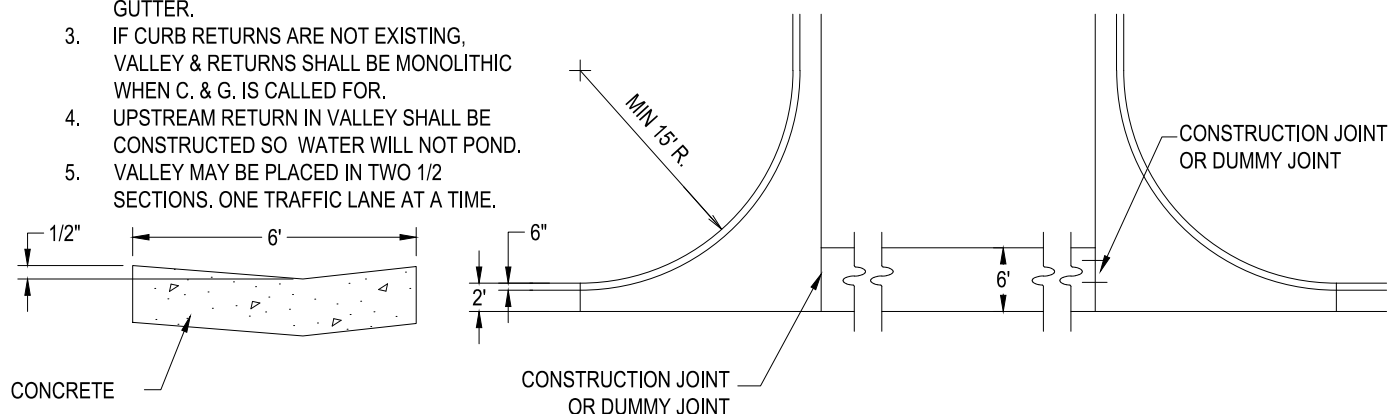
REQUIRED IF REMOVAL OF EXISTING CURB & GUTTER DOES NOT LEAVE A SMOOTH SURFACE AND ALIGNMENT ALONG ASPHALT & BASE.



STREET TIE-IN NEW DRIVE APPROACH ON EXIST STREET

NOTES:

1. VALLEY GUTTERS REQUIRED PER ORDINANCES.
2. CURB & GUTTER TO BE PAID FOR SEPARATELY FROM CONCRETE VALLEY AT THE CONTRACT UNIT PRICE FOR CURB & GUTTER.
3. IF CURB RETURNS ARE NOT EXISTING, VALLEY & RETURNS SHALL BE MONOLITHIC WHEN C. & G. IS CALLED FOR.
4. UPSTREAM RETURN IN VALLEY SHALL BE CONSTRUCTED SO WATER WILL NOT POND.
5. VALLEY MAY BE PLACED IN TWO 1/2 SECTIONS. ONE TRAFFIC LANE AT A TIME.

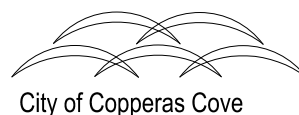


STANDARD VALLEY

STREET TIE-IN: NEW DRIVE APPROACH ON EXISTING STREET

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

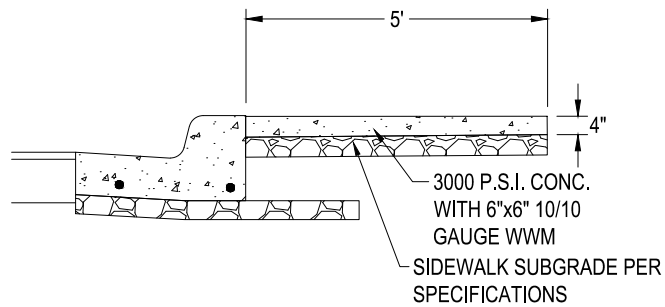
CONSTRUCTION STANDARD DETAILS



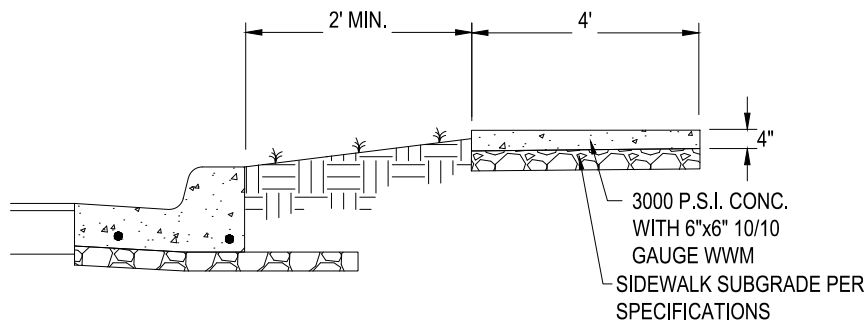
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SIDEWALK DIRECTLY BEHIND CURB



SIDEWALK NOT DIRECTLY BEHIND CURB

NOTE:
SIDEWALK SLOPE PER CITY OF COPPERAS COVE STANDARD SPECIFICATIONS.

STANDARD SIDEWALK

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

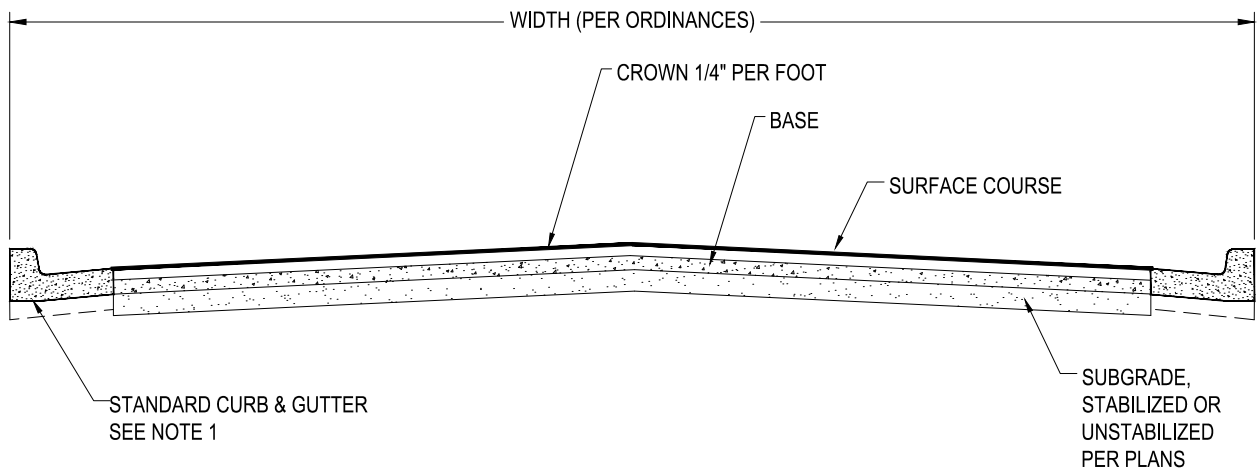
CONSTRUCTION STANDARD DETAILS



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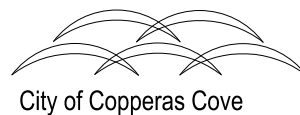
**NOTES:**

1. LIP OF GUTTER SHALL BE SAME ELEVATION AS TOP OF SURFACE COURSE. IF BOTTOM OF CURB DOESN'T EXTEND TO TOP OF SUBGRADE FILL MUST BE ONE OF THE FOLLOWING:
 - CONCRETE (EXTEND DEPTH OF CURB)
 - 4" MINIMUM COMPACTED ROAD GRAVEL
 - 4" MINIMUM COMPACTED STABILIZED SUBGRADE MATERIAL
2. THICKNESS OF SURFACE COURSE, BASE AND SUBGRADE SHALL BE PER STANDARD SPECIFICATIONS.

TYPICAL STREET SECTION

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



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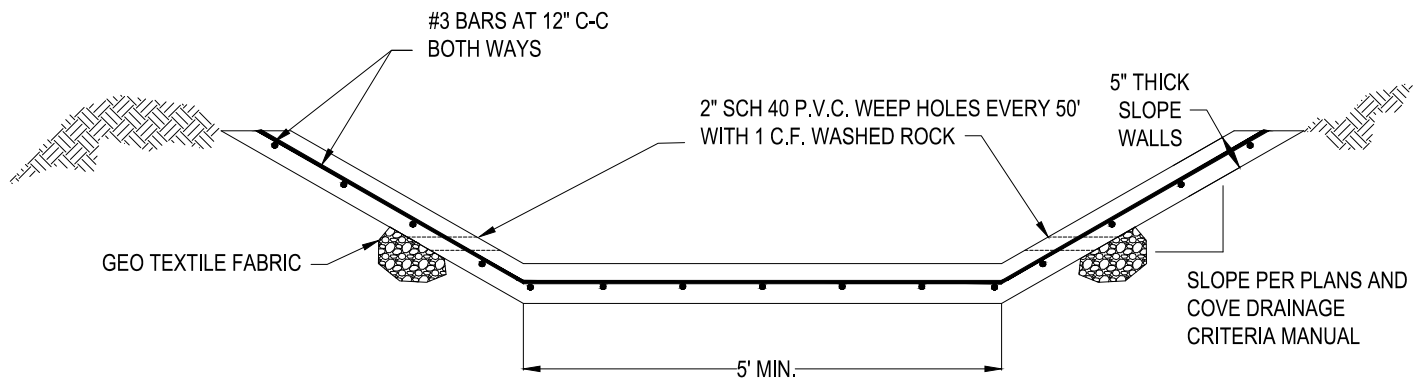
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CITY OF COPPERAS COVE

DRAINAGE DETAILS





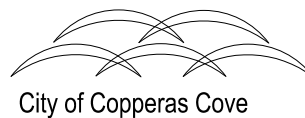
NOTES:

1. CHANNEL WALLS WILL BE DESIGNED TO SUIT PROJECT SPECIFIC SITE.
2. CONCRETE MUST BE PLACED TO ENSURE POSITIVE DRAINAGE SLOPE.
3. PLEASE REFER TO CONCRETE SPECIFICATION FOR CONCRETE REQUIREMENTS.

CONCRETE LINED CHANNEL

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



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CONST. JOINT

BEGIN GUTTER TRANSITION

1/2" PREMOLDED EXPANSION JOINT MATERIAL

SLAB THICKNESS = 6"

5'-0"

6"

5"

4"

8"

NO.4 @ 12" C-C EACH WAY

CONSTRUCTION JOINT

2000 PSI CONCRETE

6" X 6" SUPPORT POST ON 10' AND LARGER INLETS ONLY

VARIES SEE PLANS

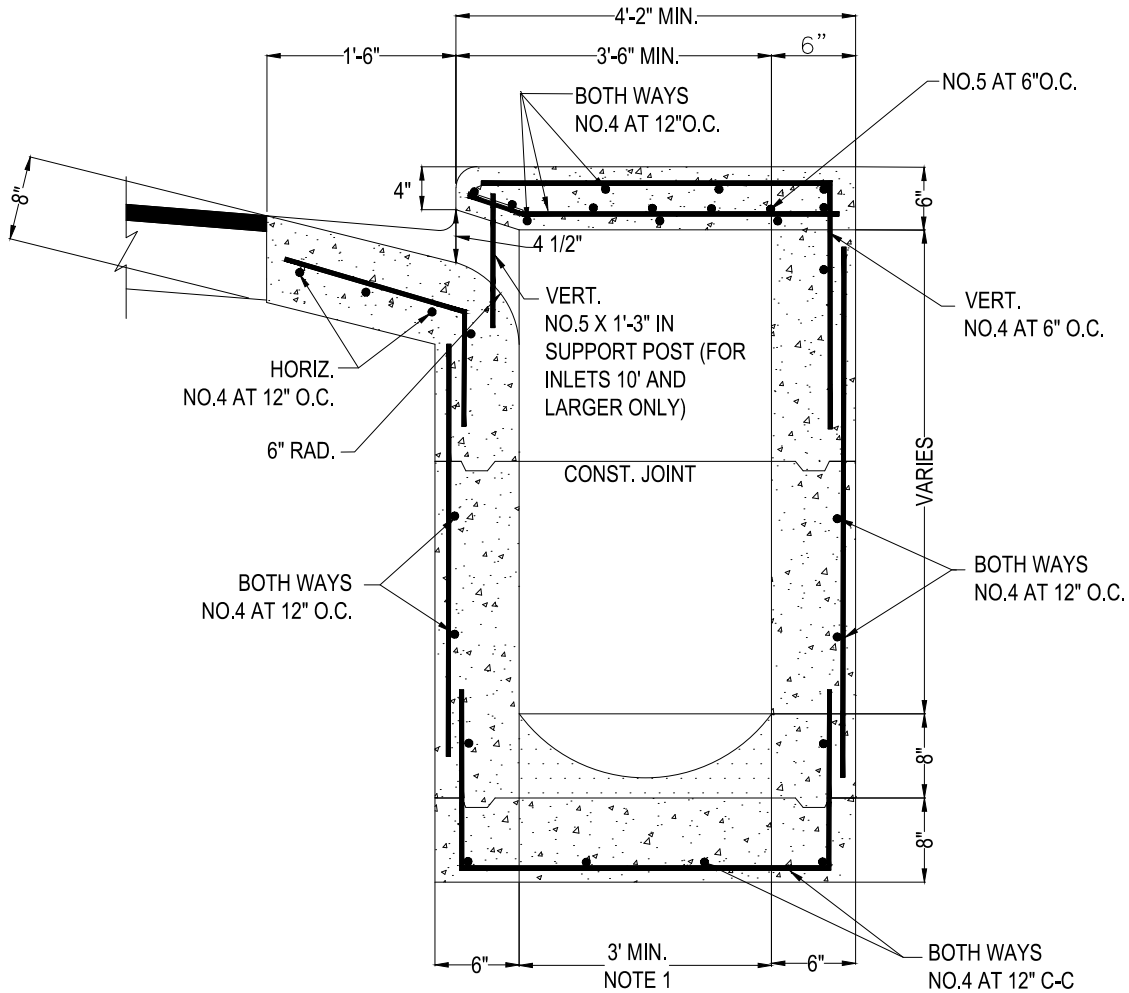
8"

8"

SEE NOTE 1

FRONT

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SECTION C-C

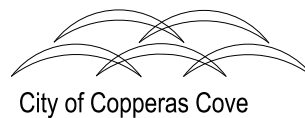
NOTES:

1. DEPTH OF DRAINAGE INLET SHALL CONFORM TO LATEST DRAINAGE CRITERIA MANUAL DESIGN REQUIREMENTS.
2. STEEL IN END WALL SAME AS STEEL IN SIDE WALL.

STANDARD CAST IN PLACE INLET: SIDE SECTION

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

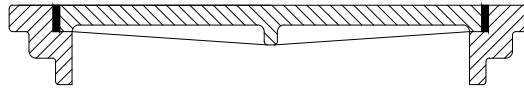
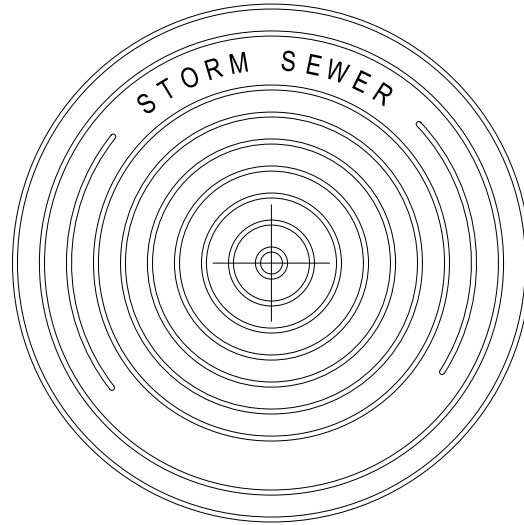
CONSTRUCTION STANDARD DETAILS



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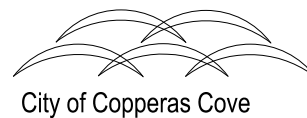
NOTES:

1. STANDARD MANHOLE RING AND COVER SHALL BE EAST JORDAN IRON WORKS OR APPROVED EQUAL.
2. DIAMETER MUST BE IN ACCORDANCE DRAINAGE CRITERIA MANUAL.

STORM SEWER MANHOLE COVER

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

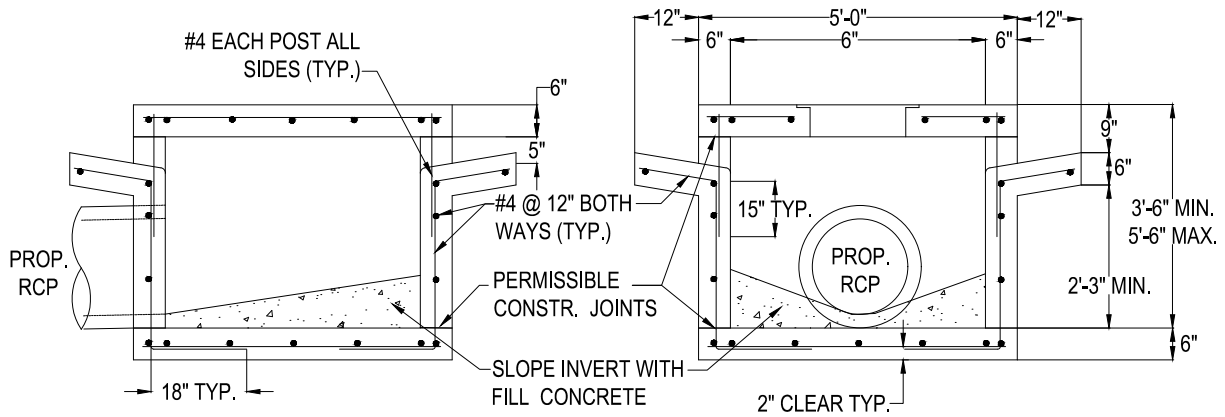
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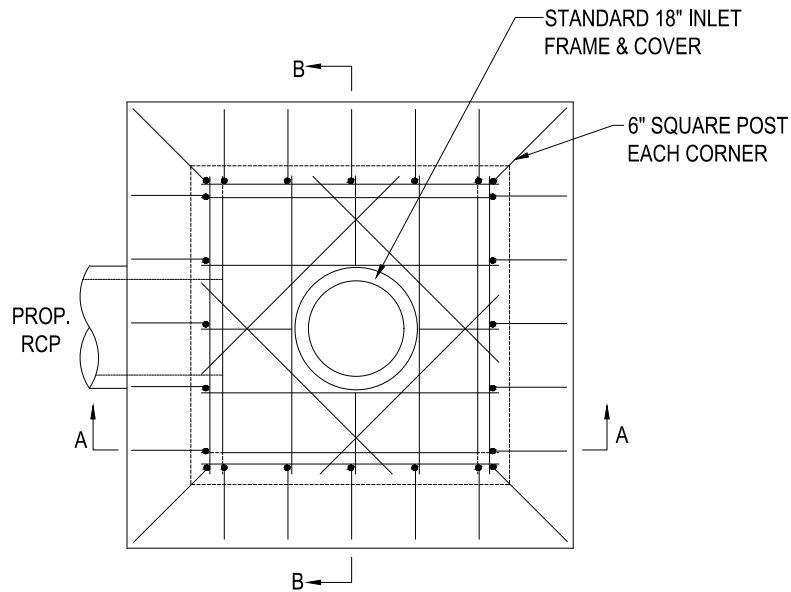
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ELEVATION-SECTION A-A

ELEVATION-SECTION B-B



PLAN

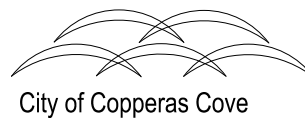
NOTES:

1. CHAMFER ALL EXPOSED EDGES 3/4".
2. REINFORCING STEEL SHALL BE CUT OR FIELD-BENT AS REQUIRED TO CLEAR PIPE AND INLET FRAME OPENING. ALL CUT STEEL SHALL BE REPLACED WITH ADDITIONAL DIAGONAL BARS OF THE SAME DIAMETER.
3. CONCRETE COVERAGE OF STEEL SHALL BE 2" MIN. AT ALL SURFACES.

4-SIDED AREA INLET

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



SCALE : N.T.S.

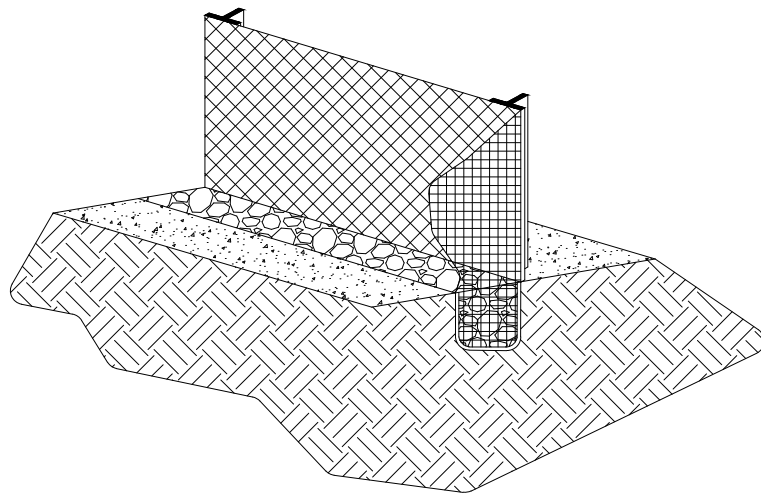
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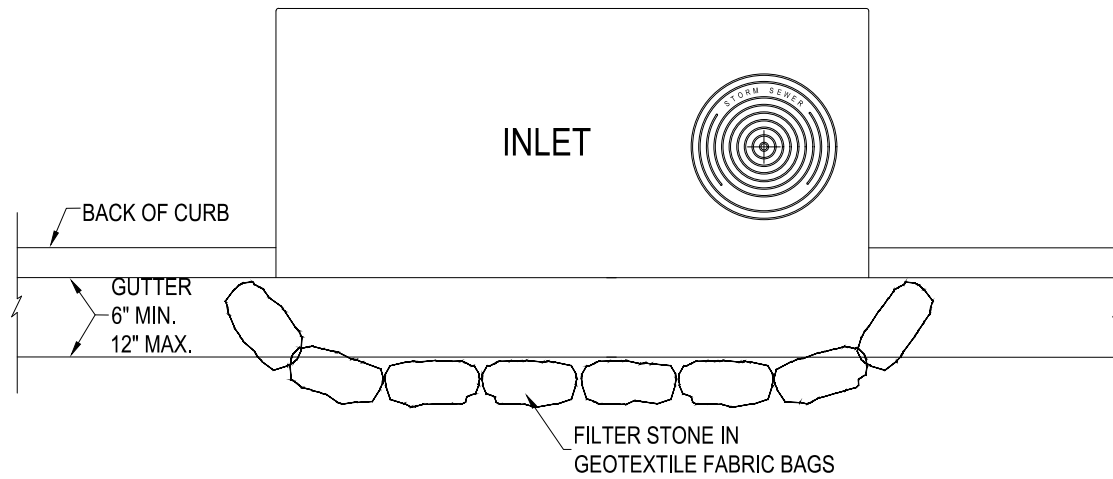
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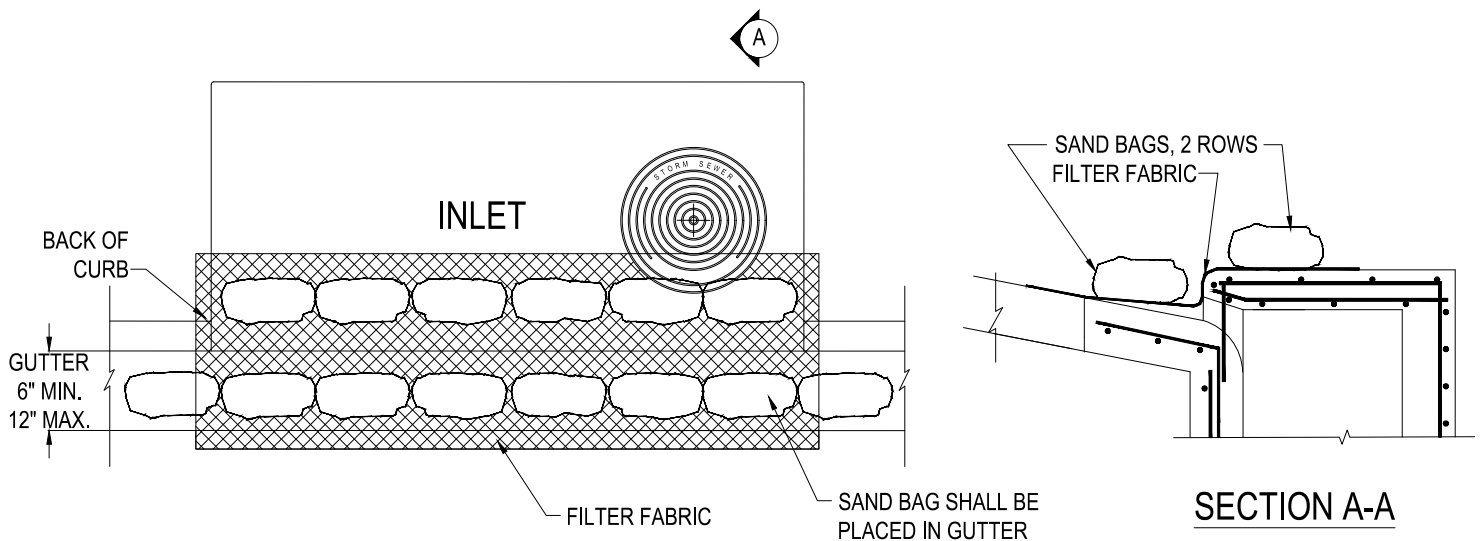
EROSION CONTROL

DETAILS





OPTION 1



TOP VIEW

SECTION A-A

OPTION 2 - SILT FENCE

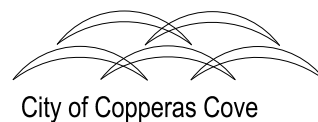
NOTES:

1. DRAIN FILTER MATERIAL SHALL BE UV RESISTANT AND MUST NOT DEGRADE DUE TO ATMOSPHERIC CONDITIONS. DRAIN FILTER MATERIAL SHALL BE REPLACED UPON FIRST SIGN OF DETERIORATION.
2. FILTER SHALL BE MAINTAINED BY OWNER AND KEPT CLEAN.
3. FILTER SHALL BE REMOVED IN THE EVENT OF A MAJOR STORM EVENT (>2 YEAR STORM)

CURB INLET DRAIN FILTER

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

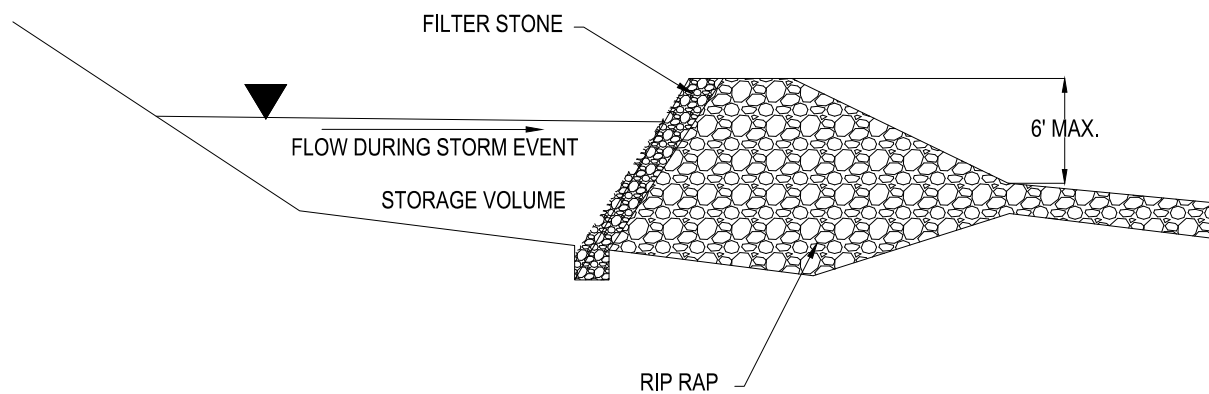
CONSTRUCTION STANDARD DETAILS



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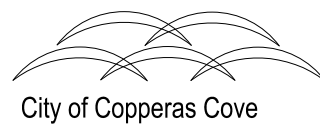
**NOTE:**

1. STONE OUTLET SEDIMENT TRAPS ARE USED FOR SITUATIONS WHERE FLOWS ARE CONCENTRATED IN A DRAINAGE SWALE OR CHANNEL.
2. FLEXAMAT OR PRE-APPROVED EQUAL TO BE PLACED ON TOP OF RIP RAP TO ENABLE MOWING OVER TOP OF STONE OUTLET SEDIMENT TRAP.

STONE OUTLET SEDIMENT TRAP

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

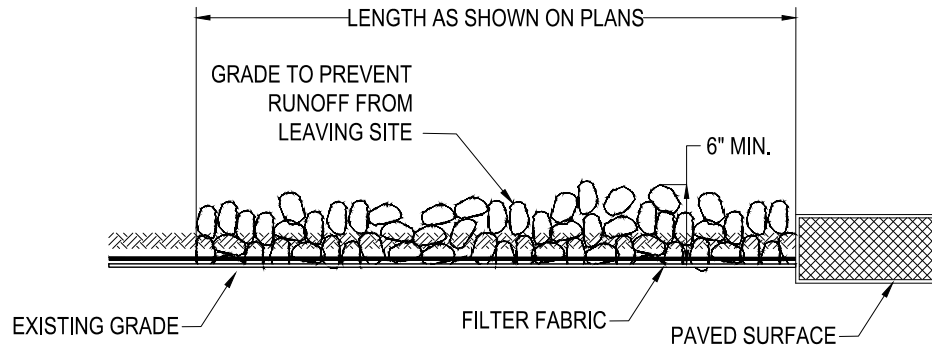
CONSTRUCTION STANDARD DETAILS



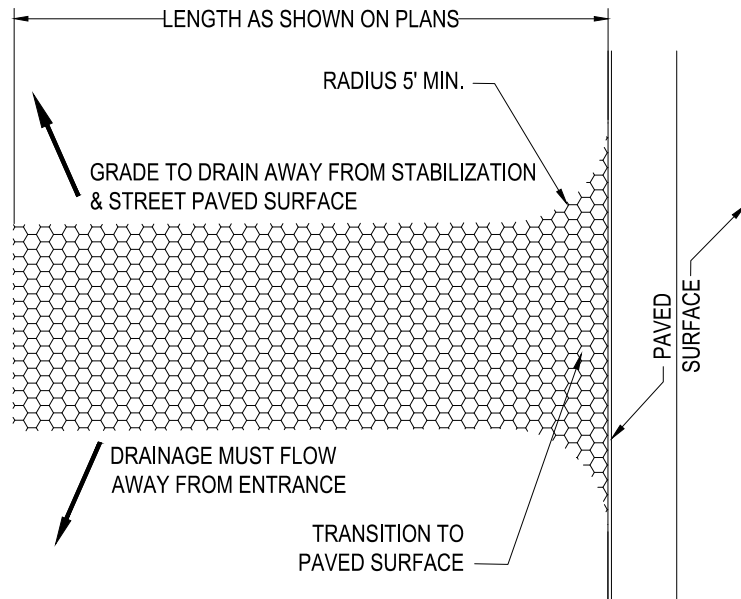
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PROFILE VIEW



PLAN VIEW

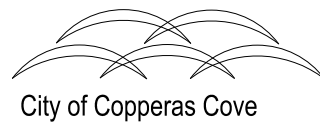
NOTE:

STABILIZED CONSTRUCTION ENTRANCES SHALL BE USED FOR SITES IN WHICH SIGNIFICANT TRUCK TRAFFIC OCCURS ON A DAILY BASIS.

STABILIZED CONSTRUCTION ENTRANCE

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

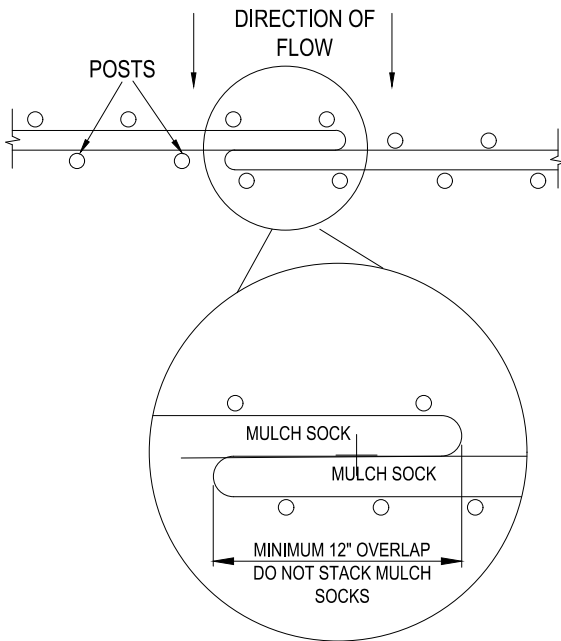
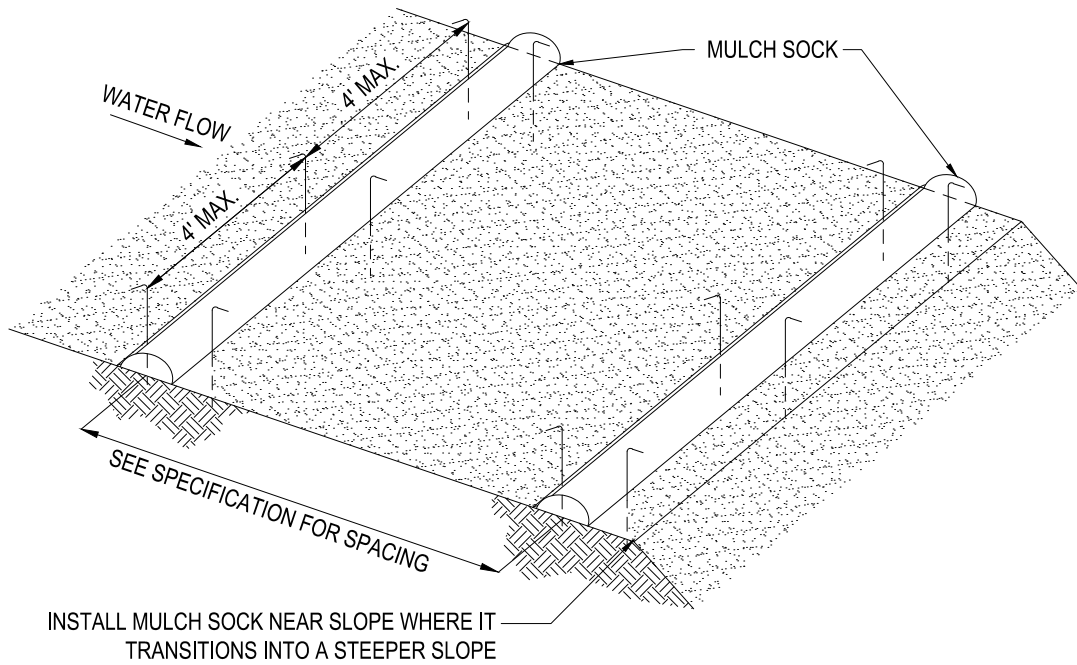
CONSTRUCTION STANDARD DETAILS



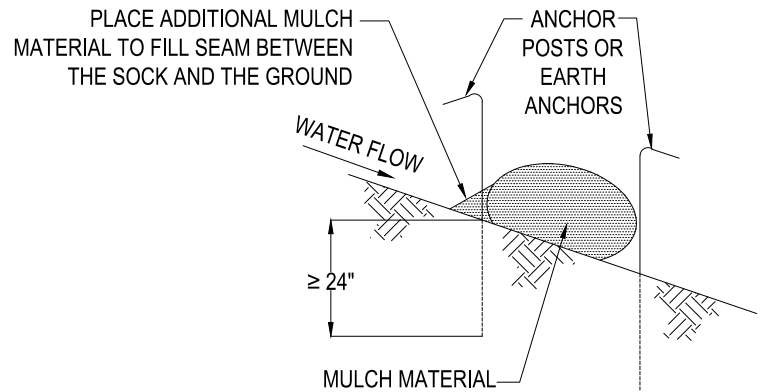
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OVERLAP DETAIL

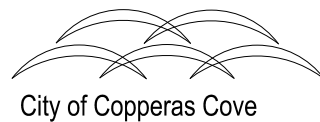


ANCHOR DETAIL

MULCH SOCK

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



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SILT FENCE (MIN. HEIGHT 24"
ABOVE EXISTING GROUND)

COMPACTED EARTH
OR ROCK BACKFILL

FENCE POST:
4' MIN. LENGTH,
6' MAX. SPACING,
1' MIN. EMBEDMENT

WIRE MESH BACKING

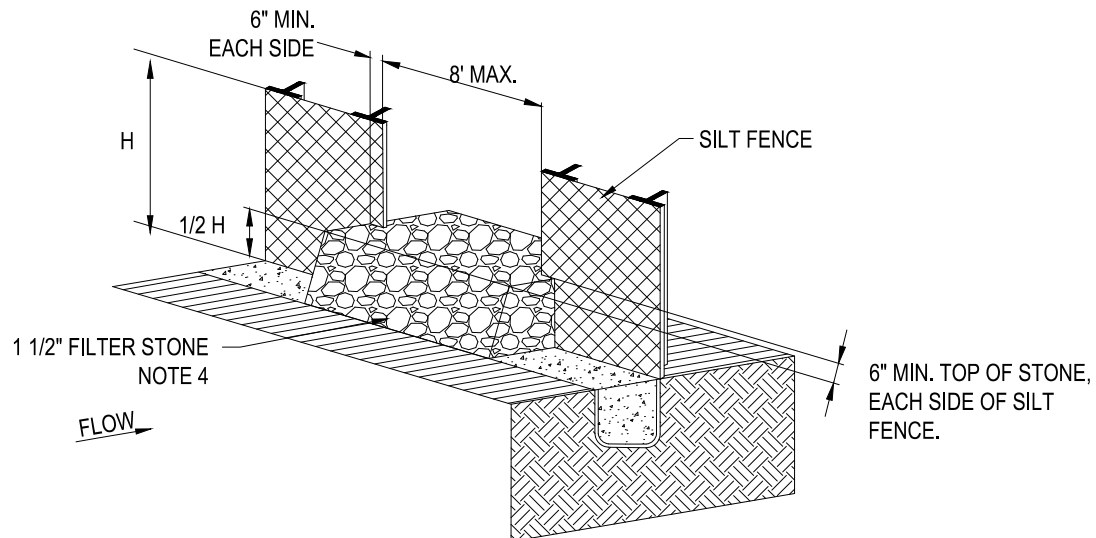
6" MIN

FLOW

TRENCH

6" MIN

SILT FENCE



STONE OVERFLOW STRUCTURE

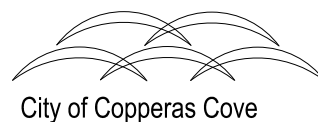
NOTES:

1. FILTER STONE FOR AN OVERFLOW STRUCTURE SHALL BE 1 1/2" WASHED STONE CONTAINING NO FINE MATERIAL. ANGULAR SHAPED STONE IS PREFERABLE TO ROUNDED SHAPED STONE.
2. FENCE POSTS SHALL BE GALVANIZED STEEL OR EQUIVALENT AND MAY BE T-SECTION OR L-SECTION, 1.3 POUNDS PER LINEAR FOOT MINIMUM, AND 4 FEET IN LENGTH MINIMUM. WOOD POSTS MAY BE USED DEPENDING ON ANTICIPATED LENGTH OR SERVICE AND PROVIDED THEY ARE 4 FEET IN LENGTH MINIMUM AND HAVE A NOMINAL CROSS SECTION OF 2 INCHES BY 4 INCHES FOR PINE OR 2 INCHES BY 2 INCHES FOR HARDWOODS.
3. SILT FENCE SHALL BE SUPPORTED BY GALVANIZED STEEL WIRE FENCE FABRIC AS FOLLOWS:
 - A. 4" X 4" MESH SIZE, W1.4 X W1.4 MINIMUM 14-GAUGE WIRE FENCE FABRIC
 - B. HOG WIRE, 12-GAUGE WIRE, SMALL OPENINGS INSTALLED AT BOTTOM OF SILT FENCE
 - C. STANDARD 2" X 2" CHAIN LINK FENCE FABRIC
 - D. OTHER WELDED OR WOVEN STEEL FABRICS CONSISTING OF EQUAL OR SMALL SPACING AS THAT LISTED HEREIN AND APPROPRIATE GAUGE WIRE TO PROVIDE SUPPORT.
4. STONES IN STONE OVERFLOW SHALL BE HELD IN PLACE BY GABION BASKET.

SILT FENCE & STONE OVERFLOW STRUCTURE

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

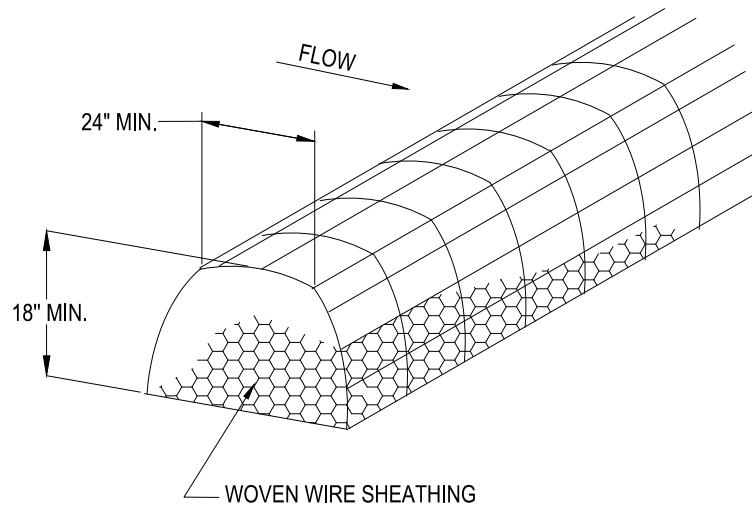
CONSTRUCTION STANDARD DETAILS



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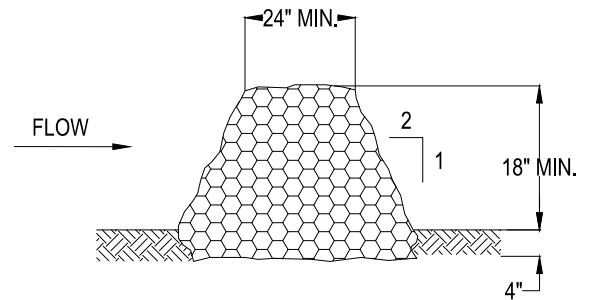
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ROCK BERM

STANDARD SYMBOL
FOR ROCK BERM (RB)

RB



CROSS SECTION

NOTES:

1. USE ONLY OPEN GRADED ROCK 3" TO 5" DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM 1" OPENING AND MINIMUM WIRE DIAMETER OF 20 GAUGE.
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 6", WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

TYPICAL ROCK BERM

CITY OF COPPERAS COVE
DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION STANDARD DETAILS



City of Copperas Cove

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